ORDER NO. VSD9212M628

Service Manual

Panasonic S-VHS VHS PAL 625 Hi-Fi
Professional/Industrial Video

S-VHS Time Lapse Video Cassette Recorder

AG-6730E

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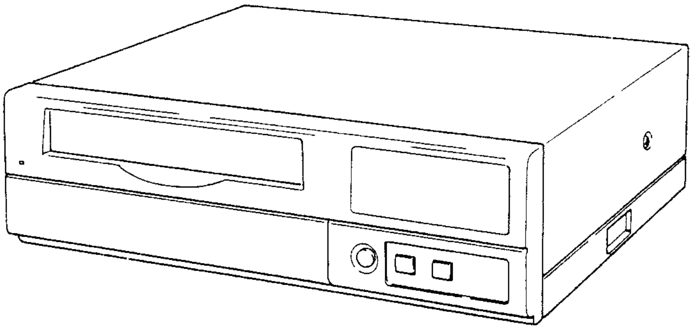

Panasonic

SPECIFICATIONS

ITEM	SPECIFICATIONS	
Power	Source AC220 to 240 V, 50 / 60 Hz Consumption : Approx. 27W	
Television Format	CCIR Standard (625 lines, 50 fields) PAL colour signal	
Tape Format	S-VHS / VHS tape	
Tape Speed	23.39 mm/s (3H mode)	
Recording Time	3 / L12 / L24 / 24 / 48 / 72 / 84 / 120 / 240 / 480 hours and 1-shot mode	
FF/Rew Time	Approx. 3 min. with 180-minute tape	
Video	Head	4 rotary heads, helical scanning system (49µm - 35µm) x 2
	Luminance	FM azimuth recording
	Colour signal	converted subcarrier shift recording
	Input Level	LINE IN (BNC): 1.0Vp-p 75Ω unbalanced
	Output level	LINE OUT (BNC): 1.0Vp-p 75Ω unbalanced
	S/N Ratio	B/W; 45dB (3H mode) Colour; 45dB (3H mode)
	Horizontal Resolution	B/W; 400 lines (S-VHS) / 320 lines (VHS) Colour; 400 lines (S-VHS) / 240 lines (VHS)
Standard Accessories	Power Code	

ITEM	SPECIFICATIONS	
Audio	Head	Normal Audio / Control: 1 stationary head
	Track	1 track
	Input level	LINE IN (PHONO): -10dBv 47KΩ unbalanced MIC IN (M3): -60dBv 600Ω to 4.7KΩ unbalanced
	Output level	LINE OUT (PHONO): -8dBv 600Ω unbalanced
	S/N Ratio	43dB (3H mode)
	Frequency response	50Hz - 10KHz (3H mode)
Operating Temperature	41°F to 104°F (5°C to 40°C)	
Operating Humidity	35% to 80%	
Dimensions	380(W) x 112(H) x 340(D) mm	
Weight	Approx. 7.5 kg	
Optional Accessories	RS-232C Interface Adaptor : AG-IA670 Frame Switcher : WJ-FS10A Remote Controller : AG-A67 Rack-Mounting Adaptor : AG-M670	

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

INTRODUCTION

This Service Manual contains all the thechnical information which will allow service personnel to understand and service the Panasonic VHS Time Lapse video cassette recorder model AG-6730E.

This model is reliable and economical time lapse video cassette recorder for both Video logging and observation. In addition to L12, 24, L24, 48, 72, 84, 120, 240, 480-hours and 1-shot mode time lapse recording which produces a compatible S-VHS/VHS format tape. This new model also includes 3-hours standard play VHS mode.

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SAFETY PRECAUTIONS

GENERAL GUIDELINES

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

LEAKAGE CURRENT COLD CHECK

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohm meter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads connectors, control shafts,etc. When the exposed metallic part has a return path to the chassis, the reading should be between 1M ohm and 5.2 M ohm.
   When the exposed metal does not have a return path to the chassis, the reading must be ∞.

LEAKAGE CURRENT HOT CHECK

(See Figure 1)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a 1.5k ohm, 10 watts resistor, in parallel with a 0.15uF capacitor, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

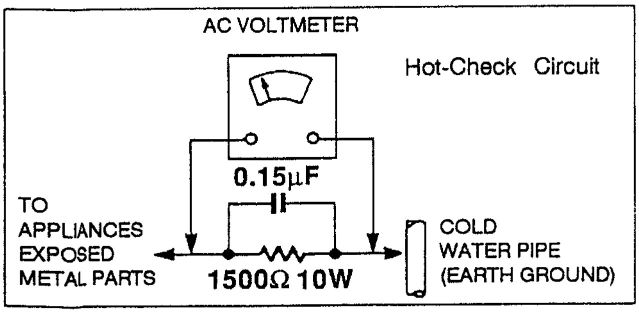
AC VOLTMETER
Hot-Check Circuit
0.15μF
TO APPLIANCES EXPOSED METAL PARTS
1500Ω 10W
COLD WATER PIPE (EARTH GROUND)

Figure 1

ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor chip components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground.
   Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device classified as anti-static can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package untilimmediately before you are ready to install it. (Most replacementES devices are packaged with leads eletcrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION : Be sure no power is applied to the chassis or circuit, and observe all otner asfety precautions.
8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device).

Section 1

OPERATING INSTRUCTIONS

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Features

Highly reliable IQ (intelligent quest) mechanism

- 2 reel motors
  Each of the two reels for taking up and advancing the tape has its own motor.

- New brush-less motors
  Newly developed and extremely durable brush-less motors are used for the direct drive (DD) motors.

- Large-diameter impedance rollers (model AG-6730 only)
  These large-diameter rollers made of pure brass have a large mass to keep the tape tension constant.

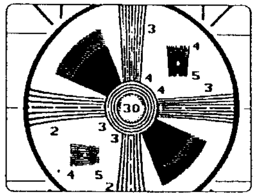
- 16-bit digital servo system
  This controls the tape transport system to a high degree of accuracy and stabilizes tape transport. It improves the recording and playback accuracy and enhances the picture quality overall.

S-VHS system with high picture quality

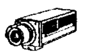
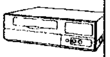
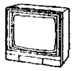
(model AG-6730 only)

The adoption of the S-VHS system enables high-definition pictures with a horizontal resolution of over 400 lines to be achieved.

Horizontal resolution of 400 lines



- Conditions for achieving a horizontal resolution of over 400 lines

Camera	Tape	Recording/ playback	Monitor
			
Camera with a horizontal resolution of over 400 lines	**Using a Panasonic S-VHS tape**	**Recording/ playback in the S-VHS mode monitor**	**Monitor with a horizontal resolution of over 400 lines**

Multiple-function recording modes

- Wide variety of recording time modes enabling long-duration recording.
  - 3-, L12-, L24-, 24-, 48-, 72-, 84-, 120-, 180-, 240- and 480-hour recording modes
  - 1-shot recording mode

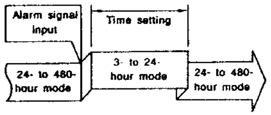
- Internal timer recording modes for achieving the automation and labour-saving of monitoring functions

- External timer recording modes for even more reliable operation

- Alarm recording mode which, when an alarm signal is input, switches the VTR to an hour mode enabling high-fidelity pictures to be recorded

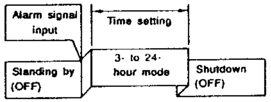
Coupled to emergency bell and alarm

- **Corners where a cash dispenser or automatic teller machine is installed**
- **Convenience stores, etc.**



- Sensor recording mode which starts recording when an alarm signal is input even when the VTR is shut down or when the power is OFF (emergency recording)

- **Sensor recording is possible even when the VTR is standing by in the internal timer recording mode.**



(it is also possible to prevent the time mode from being changed during alarm recording or sensor recording.)

Other Features

- The cleaning roller automatically cleans the head cylinder each time a tape is loaded.
- When the optional RS-232C interface adaptor AG-IA670 is mounted, a personal computer can be used to control the VTR.
  Also, VITC time codes can be recorded (see page 1-35).

Controls and Their Functions

Front Panel

❶ **VTR Lamp**
This lights when the power is turned on.

❷ **Cassette Holder** (see page 1-6)

❸ **Display Section** (see page 1-4)

❹ **EJECT Button** (see page 1-6)

❺ **REC REVIEW Button** (see page 1-7)
When this is pressed while recording is in progress, the recording can be monitored.

❻ **REC Button** (see page 1-8)

Sub Panel

❼ **VTR Button**

For Swedish and Danish Customers

- Aven om denna omkopplare är i "OFF"-läge, gar fortfarande en del av apparaten nätspänning.
- Selv om denne omskifter er i "OFF" stilling, tiløres en del af apparatet stadig strøm.

❽ **TRACKING Controls** (see page 1-14)
Used to adjust the tracking.

❾ **REC MODE Button** (see page 1-7)
Used to select the recording mode.

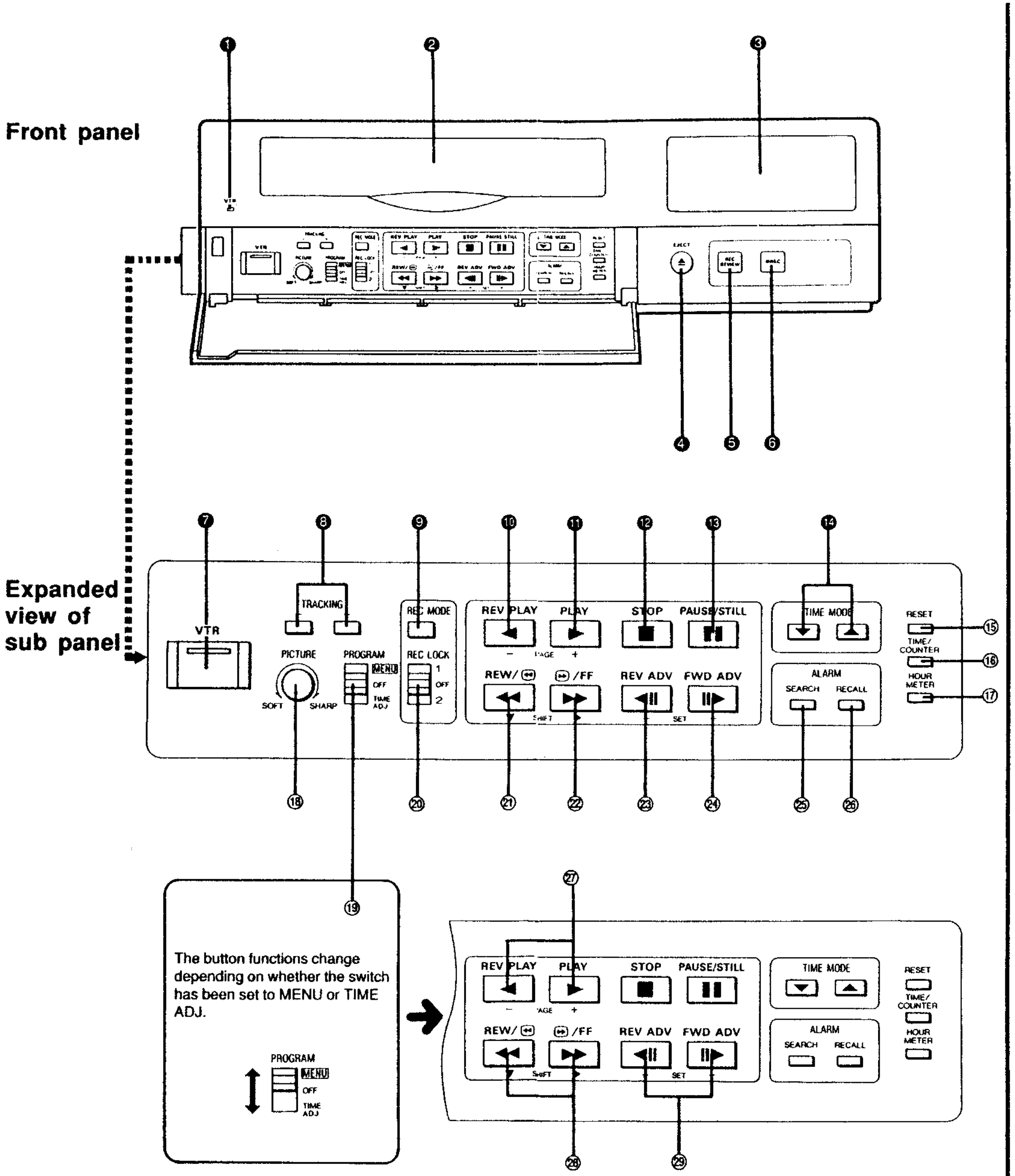
❿ **REV PLAY Button** (see page 1-14)

⓫ **PLAY Button** (see page 1-14)

⓬ **STOP Button** (see page 1-6)

⓭ **PAUSE/STILL Button** (see page 1-6)
Used for temporarily stopping recording or for still-picture playback.

⓮ **TIME MODE Buttons** (see page 1-7)
Used to select the time mode.


Front panel
❶
❷
❸
❹ ❺ ❻
Expanded view of sub panel
❼ ❽ ❾ ❿ ⓫ ⓬ ⓭ ⓮
VTR
TRACKING
PICTURE
SOFT
SHARP
PROGRAM
MENU
OFF
TIME ADJ
REC MODE
REC LOCK
1
OFF
2
REV PLAY
PLAY
STOP
PAUSE/STILL
− PAGE +
REW/⊖
⊕/FF
REV ADV
FWD ADV
SHIFT
SET
TIME MODE
ALARM
SEARCH
RECALL
RESET
TIME/COUNTER
HOUR METER
⑮ ⑯ ⑰
⑱ ⑳ ㉑ ㉒ ㉓ ㉔ ㉕ ㉖
⑲
㉗
㉘ ㉙

The button functions change depending on whether the switch has been set to MENU or TIME ADJ.

Sub Panel

⑮ **RESET Button** (see page 1-7, 1-10, 1-20)
Used to reset the tape counter.

⑯ **TIME/COUNTER Display Selector Button** (see page 1-7)
Used to switch between the time display and tape counter display.

⑰ **HOUR METER Button**
Press this to display the total time that the VTR has been used (the cylinder has turned).

⑱ **PICTURE Control** (see page 1-14)
Used to adjust the playback picture quality.

⑲ **PROGRAM Switch** (see page 1-7, 1-16, 1-17)
Used to display the menus and set the time/date.

⑳ **REC LOCK Switch** (see page 1-7)
Used to set the recording lock mode.

㉑ **REW Button** (see page 1-6, 1-15)

㉒ **FF Button** (see page 1-6, 1-15)

㉓ **FIELD ADV (REV) Button**
(see page 1-6)

㉔ **FIELD ADV (FWD) Button**
(see page 1-6)

㉕ **ALARM SEARCH Button**
(see page 1-15)
Used to set the alarm search function.

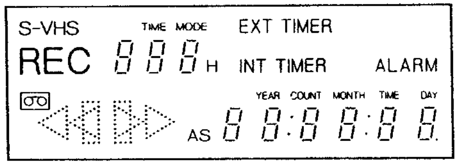
㉖ **ALARM RECALL Button**
(see page 1-10)
Used to display the alarm memory data on the monitor screen.

㉗ **PAGE Buttons** (see page 1-17)
Used to move the menu screen up or down by one page.

㉘ **SHIFT Buttons** (see page 1-17)
Used to select items on the menu screen.

㉙ **SET Buttons** (see page 1-17)
Used to select the setting value.

Description of Displays



Various information relating to the VTR appears on the large-sized display on the front panel.

S-VHS	Appears during playback/recording in the S-VHS mode. (Model AG-6730 only)
REC	Lights up during recording.
TIME MODE 888H	Indicates the hour mode.
EXT TIMER	Indicates the recording mode. No display: Regular mode EXTERNAL TIMER: External timer recording mode INTERNAL TIMER: Internal timer recording mode (when this mode is selected, the power is turned off).
ALARM	Appears when the alarm recording mode is set. It appears when "MODE" on menu screen 4 is set to any of the options except "OFF." (See page 1-21)
⊡	Appears when a cassette is inserted. After the recording review, this flashes when an error occurs. (See page 1-34)
◁◁ ◁ ▯▯ ▷ ▷▷	Indicates the VTR's operating mode. ▷ : Playback ◁ : Reverse playback REC ▷ : Recording, monitoring of recording REC ▯▯ : Recording pause ▯▯ : Still-picture, frame advance ▷▷ : Fast forward, search forward ◁◁ : Rewind, search reverse
AS	Appears when the alarm search mode is established. (See page 1-15)
888888	Indicates the time/date or tape counter value.
E - 2	Indicates an error code when an error occurs. (See page 1-34)

Operating Precautions

Operating precautions

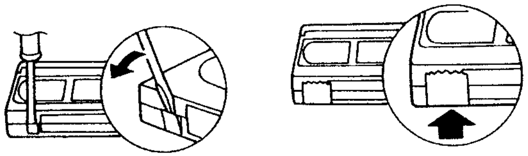
- If the PAUSE/STILL button is pressed during recording in any time mode from 3H to L24H, the tape will run in the reverse direction for about 3 seconds before stopping.
  When the same button is pressed again, the tape will run for about 3 seconds before recording is resumed.
- Time lapse recording is performed in the 24H or longer recording time mode. By omitting frames while recording the pictures, it is possible to record over long periods of time. However, since the picture is not continuous, the sound cannot be recorded.
- When the recording time mode has been set to any position other than "OFF" on menu screen 2, it cannot be changed using the TIME MODE button on the sub panel during recording. When it has been set to "OFF," the time mode can be changed even during recording using the TIME MODE button on the sub panel.
- When the power is restored after a power failure and power is again supplied to the VTR, the power loss memory screen shown below will appear on the monitor screen for 15 seconds.
  While the power loss memory display appears on the monitor screen, menu screen and time settings cannot be conducted.

```
POWER LOSS    05 31-10-92
                 17:42
```

- The TIME MODE button does not work during alarm recording.
- When the REC button is pressed during still-picture playback, the VTR is set to the recording pause mode, and the E-E picture appears on the monitor.
- If frame advance and frame reverse operations are repeated many times in the same place on the tape, noise may appear. It will disappear when frame advance or frame reverse is continued.

Accidental erasure prevention tab

- Valuable recordings can be protected from accidental erasure by breaking out the tab on the cassette.
- To re-record over a tape in a cassette whose tab has been broken out, stick an adhesive tape over the tab opening.



Break out the tab in the direction of the arrow.

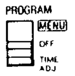
Operation Map

The sequence of steps to be taken from connecting the VTR to playback is described on these pages.

Connections/preparations
(see page 1-30)

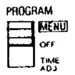
- Connect the cameras, monitors, sequential switcher, alarm switch, sensor switch, buzzer, etc. to the VTR as required.
- Turn on the power to the VTR and to the units which have been connected to it.
- Check that a clear picture from the camera appears on the TV monitor.
- Insert the cassette tape.

Time & date setting
(see page 1-16)



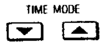
Set the time and date.

Menu setting
(see page 1-17)



Set the menus.
(Operation is possible only when in the eject or stop mode and when the recording lock switch is OFF.)

Time mode setting
(see page 1-7)



The mode can be set when REC T-MODE on menu screen 2 is set to "OFF."

Recording mode setting
(see page 1-7)

Select one of the following 3 modes.
- Regular mode
- External timer mode
- Internal timer mode

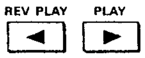
Recording
(see page 1-8)

Recording starts when this is pressed.

Recording check
(see page 1-7)

The material just recorded can be checked while the recording is actually in progress.

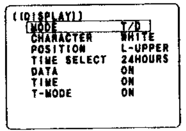
Playback
(see page 1-14)



- Playback
- Reverse playback
- Search forward
- Search reverse
- 1-frame forward
- 1-frame reverse
- Still-picture playback

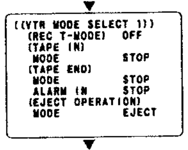
(see page 1-6)

Menu screens



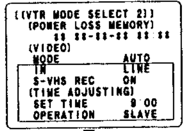
```
((DISPLAY))
  MODE          T/D
  CHARACTER     WHITE
  POSITION      L-UPPER
  TIME SELECT   24HOURS
  DATA          ON
  TIME          ON
  T-MODE        ON
```

Menu screen 1
Menu display setting
- ☐ is no indication for AG-6040.



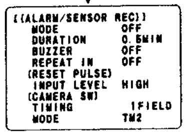
```
((VTR MODE SELECT 1))
  (REC T-MODE)   OFF
  (TAPE IN)
   MODE          STOP
  (TAPE END)
   MODE          STOP
   ALARM IN      STOP
  (EJECT OPERATION)
   MODE          EJECT
```

Menu screen 2
VTR mode setting 1



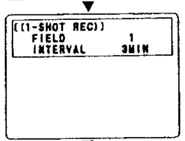
```
((VTR MODE SELECT 2))
  (POWER LOSS MEMORY)
       ** **-**-** **:**
  (VIDEO)
   MODE          AUTO
   IN            LINE
   S-VHS REC     ON
  (TIME ADJUSTING)
   SET TIME       9:00
   OPERATION     SLAVE
```

Menu screen 3
VTR mode setting 2
- ☐ is no indication for AG-6040.



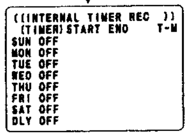
```
((ALARM/SENSOR REC))
   MODE          OFF
   DURATION      0.5MIN
   BUZZER        OFF
   REPEAT IN     OFF
  (RESET PULSE)
   INPUT LEVEL   HIGH
  (CAMERA SW)
   TIMING         1FIELD
   MODE          TM2
```

Menu screen 4
Alarm recording mode setting



```
((1-SHOT REC))
   FIELD            1
   INTERVAL       3MIN
```

Menu screen 5
1-shot recording mode setting
- ☐ is no indication for AG-6040.

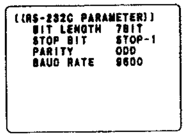


```
((INTERNAL TIMER REC  ))
 (TIMER)START END     T-M
SUN OFF
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

Menu screen 6
Internal timer recording mode setting

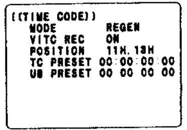
(To return to menu screen 1)

- The following screens will also appear when the optional RS-232C interface adaptor AG-IA670 is mounted.



```
((RS-232C PARAMETER))
   BIT LENGTH  7BIT
   STOP BIT    STOP-1
   PARITY      ODD
   BAUD RATE   9600
```

Menu screen 7
RS-232C parameter setting

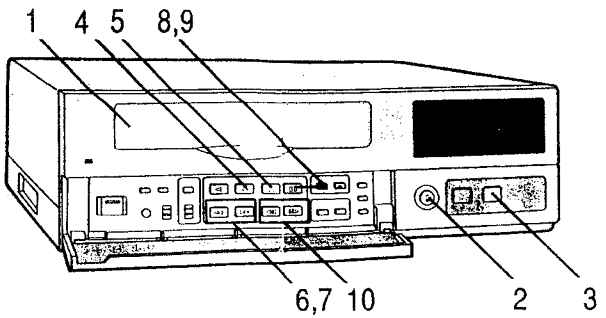


```
((TIME CODE))
   MODE          REGEN
   VITC REC      ON
   POSITION      11H.13H
   TC PRESET 00:00:00:00
   UB PRESET 00 00 00 00
```

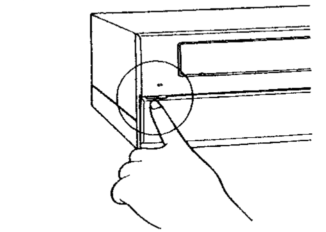
Menu screen 8
Time code setting

(To return to menu screen 1)

Basic First Steps For Operation



■ Opening the sub panel

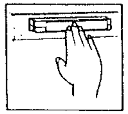


Press this corner gently with your finger.

When starting to use the VTR, make sure that you have acquainted yourself with at least these basic operations.

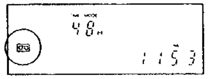
■ Installing the cassette

1



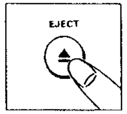
Press the middle part of the cassette.

Do not force it in!



■ Ejecting the cassette

2

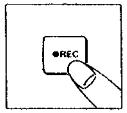


Press this button.

(No operation results unless the control is pressed down firmly.)

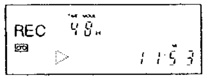
■ Recording

3



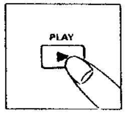
Press this button.

[See Note 1]

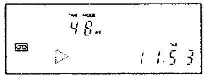


■ Playback

4

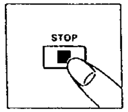


Press this button.



■ Stop

5

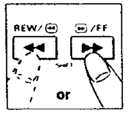


Press this button.

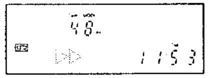
This will stop all tape travel.

■ Fast forwarding/rewinding

6

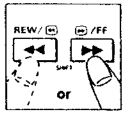


Press one of these buttons when the tape is stopped.



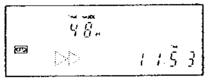
■ Search forward/search reverse

7



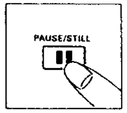
Keep one of these buttons depressed during playback.

[See Note 2]



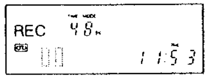
■ Temporarily suspending recording

8



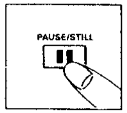
Press this button during recording.

[See Note 3]



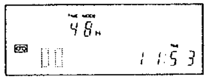
■ Still-picture playback

9



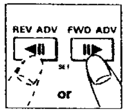
Press this button during playback.

[See Note 3]



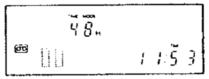
■ Frame advance/reverse playback

10



Press one of these buttons during still-picture playback.

[See Note 3]



NOTES

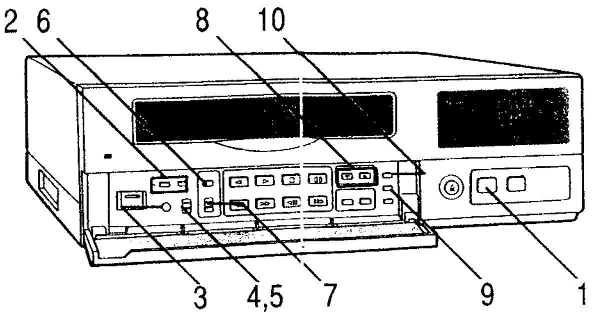
[Note 1]
If the cassette's accidental erasure prevention tab is missing, the cassette is ejected. (See page 1-4)

[Note 2]
Continuous search forward or search reverse operations can be initiated by pressing the FF or REW button once if the alarm search mode has been established. (See page 1-15)

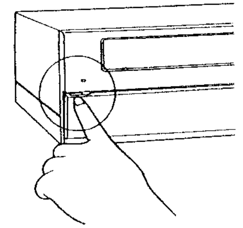
[Note 3]
The pause or still-picture mode gives way to the stop mode when a fixed period of time has elapsed. This is to protect the tape.

[Auto head cleaning function]
Any dirt on the video heads is automatically removed whenever recording or playback is started from the stop mode, whenever the unit is placed in the stop mode from the recording or playback mode so that, as a result, a clear picture is obtained. Nevertheless, the video heads may become dirty after prolonged use of the VTR, in which case they must be cleaned. The optional (non-abrasive) cassette for head cleaning is recommended.

Basic First Steps For Operation
(Continued)

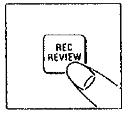


■ Opening the sub panel



Press this corner gently with your finger.

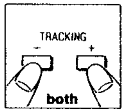
■ Monitoring the recording

1 

Press the button during recording.

[See Note 1]

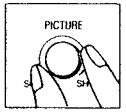
■ Adjusting the tracking

2 

Press both buttons together during playback.

If the tracking still cannot be adjusted, press the "+" or "–" button separately. (See page 1-14)

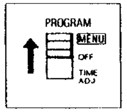
■ Adjusting the picture quality

3 

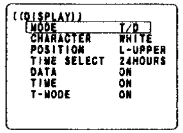
Turn this control during playback.

(See page 1-14)

■ Bringing up the menu screen

4 

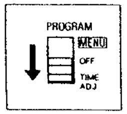
Set the switch to MENU when the tape has stopped or when it has been ejected.



```
((DISPLAY))
 MODE          T/D
 CHARACTER     WHITE
 POSITION      L-UPPER
 TIME SELECT   24HOURS
 DATA          ON
 TIME          ON
 T-MODE        ON
```

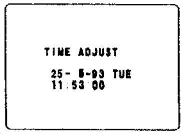
• ▭ is no indication for AG-6040.

■ Bringing up the time setting display

5 

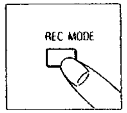
Set the switch to TIME SET when the tape has stopped or when it has been ejected.

• When the switch is set to this position during recording, the time setting screen will be recorded.



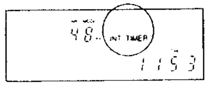
```
TIME ADJUST

 25- 5-93 TUE
 11:53:00
```

■ Selecting the recording mode

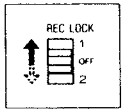
6 

Press this button and select the mode before proceeding with the recording.

[See Note 2]



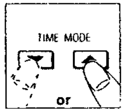
■ Locking the recording

7 

Set the switch to "1" or "2" during recording.

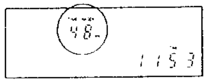
[See Note 3]

■ Selecting the time mode

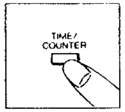
8 

Press this button before (or during) recording or playback.

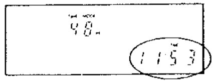
[See Note 4]



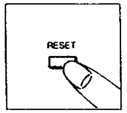
■ Switching between the time and tape counter display

9 

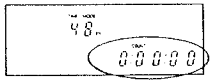
The display is switched each time this button is pressed.



■ Resetting the tape counter

10 

Press this button while the counter value is displayed.



NOTES

[Note 1]
The pictures immediately before the REC REVIEW button was pressed during recording are partially played back, and then operation returns to the recording mode.
(It takes about 3 seconds for the playback picture to appear.)
The cassette mark (▭) on the display flashes if it was not possible for the proper video level to be obtained after the recording review operation due to dirt on the heads or deterioration of the tape. (See page 1-34)

- It is also possible to set the function which automatically carries out the recording review each time the recording starts. (See page 1-33)

[Note 2]
The recording mode is set to the EXTERNAL TIMER, INTERNAL TIMER and NO DISPLAY in sequence each time the REC MODE button is pressed.
When the internal timer mode is established, the power is set OFF.
(See page 1-12)

[Note 3]
When recording is locked, the regular operations can no longer be performed.

1: Recording review only.
OFF: Regular operations can be performed.
2: Recording review, eject only.

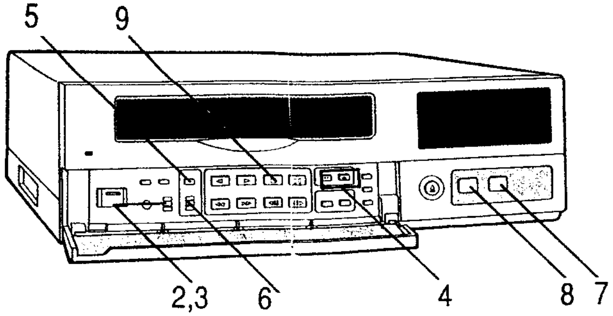
(The HOUR METER button always can be operated.)

[Note 4]
The time (hour) modes are as follows.

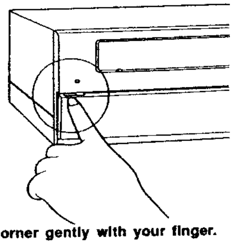
3H mode:	Standard mode
L12/L24H mode:	Continuous low-speed (linear slow) mode
24~480H mode:	Intermittent (time lapse) mode
000H mode:	1-SHOT mode

Refer to page 1-19 for more details on the recording time modes.

Recording



■ Opening the sub panel

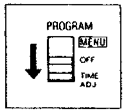


Press this corner gently with your finger.

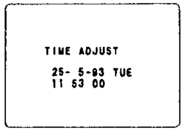
The sequence of steps to be taken from the start of recording to its completion is described on these pages.

1 **■ Connect the equipment and prepare the units for operation.** (See page 1-30)
■ Turn on the power.
■ Install a cassette with its accidental erasure prevention tab intact. (See page 1-4)
[See Note 1]

2

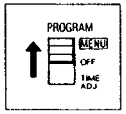


Adjust the time and date.
(See page 1-16)
[See Notes 2, 3]



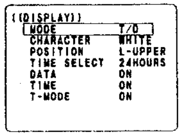
```
TIME ADJUST

 25- 5-93 TUE
 11 53 00
```

3



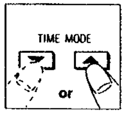
Set the menu.
(See page 1-17)
[See Note 3]

•▭is no indication for AG-6040.

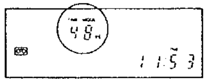


```
((DISPLAY))
 MODE           T/D
 CHARACTER      WHITE
 POSITION       L-UPPER
 TIME SELECT    24HOURS
 DATA           ON
 TIME           ON
 T-MODE         ON
```

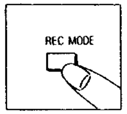
4



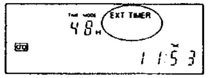
Press these buttons to set the hour mode.
[See Note 4]



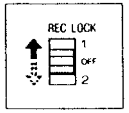
5



Press this button to set the recording mode.
[See Note 5]

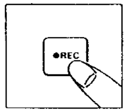


6

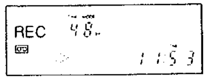


Set the switch to "1" or "2" to lock the recording.

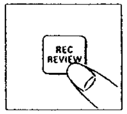
7



Press this button to start the recording.

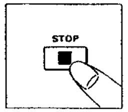


8



The recording can be monitored if this button is pressed while the recording is in progress.

9



Press this button to stop the recording.
[See Note 6]

■ Recommended tapes

This time lapse recorder has been designed to yield the high degree of reliability which is required in such applications as monitoring, security and observation. In order to assure this reliability in recording, it is recommended that the following Panasonic tapes be used.
VHS tapes: NV-E30/E60/E90/E120/E180 series
S-VHS tapes: NV-SE30EM/SE60EM/SE180EM series

NOTES

[Note 1]
The automatic recording function can be set on menu screen 2.
(See page 1-19)

[Note 2]
The automatic time setting function can be set on menu screen 3. (Model AG-6730 only)
(See page 1-20, 1-29)

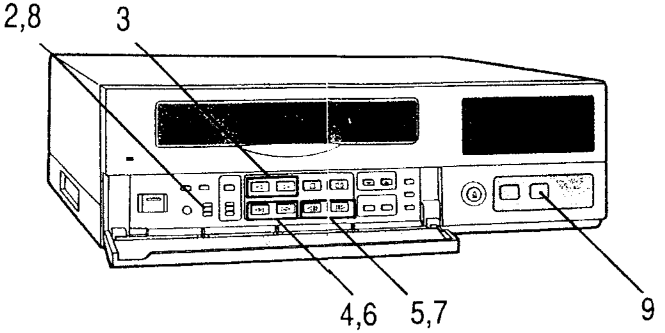
[Note 3]
Upon completion of the time and menu setting, be sure to set the PROGRAM switch to "OFF."

[Note 4]
When "REC T-MODE" on menu screen 2 is at any setting other than "OFF," the time (hour) mode will be set to the setting which was set by "REC T-MODE."
(See page 1-19)

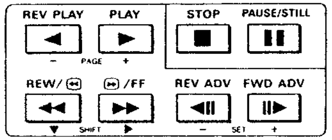
[Note 5]
When the "internal timer recording" mode is selected, the power will be turned off.
(See page 1-12)

[Note 6]
If the recording lock switch has been set to a position other than OFF, first return it to the OFF position, and then press the stop button.

Alarm Recording



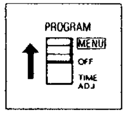
[Menu setting buttons]



PAGE (–) button:	**Page down**
PAGE (+) button:	**Page up**
SHIFT (▾) button:	**Move to item below**
SHIFT (▸) button:	**Move to item on the right**
SET (–) button:	**Change item (decrement numerical value)**
SET (+) button:	**Change item (increment numerical value)**

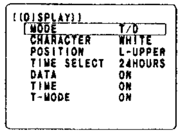
When there is an alarm input during time lapse recording, the alarm recording function changes the time mode to a setting which enables recording to be conducted clearly so that the scene of the emergency will be recorded faithfully.

1 **Complete steps 1 to 4 on page 1-8.**

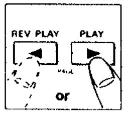
2


Set this switch to "MENU."

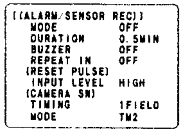
- ▭ is no indication for AG-6040.



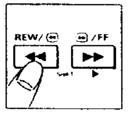
```
((DISPLAY))
 MODE          T/D
 CHARACTER     WHITE
 POSITION      L-UPPER
 TIME SELECT   24HOURS
 DATA          ON
 TIME          ON
 T-MODE        ON
```

3


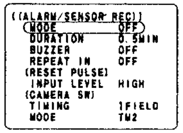
Press one of these buttons to display menu screen 4.



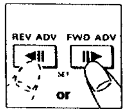
```
((ALARM/SENSOR REC))
  MODE          OFF
  DURATION      0.5MIN
  BUZZER        OFF
  REPEAT IN     OFF
 (RESET PULSE)
  INPUT LEVEL   HIGH
 (CAMERA SW)
  TIMING        1FIELD
  MODE          TM2
```

4


Press this button.

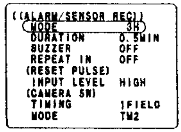


```
((ALARM/SENSOR REC))
  MODE          OFF
  DURATION      0.5MIN
  BUZZER        OFF
  REPEAT IN     OFF
 (RESET PULSE)
  INPUT LEVEL   HIGH
 (CAMERA SW)
  TIMING        1FIELD
  MODE          TM2
```

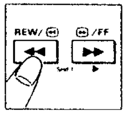
5


Press one of these buttons to select the recording time mode for alarm recording.

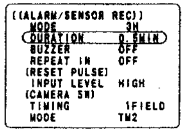
[See Note 1]



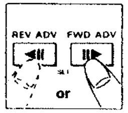
```
((ALARM/SENSOR REC))
  MODE          3H
  DURATION      0.5MIN
  BUZZER        OFF
  REPEAT IN     OFF
 (RESET PULSE)
  INPUT LEVEL   HIGH
 (CAMERA SW)
  TIMING        1FIELD
  MODE          TM2
```

6


Press this button.

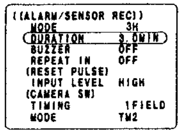


```
((ALARM/SENSOR REC))
  MODE          3H
  DURATION      0.5MIN
  BUZZER        OFF
  REPEAT IN     OFF
 (RESET PULSE)
  INPUT LEVEL   HIGH
 (CAMERA SW)
  TIMING        1FIELD
  MODE          TM2
```

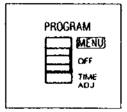
7


Press one of these buttons to select the recording duration.

[See Note 2]

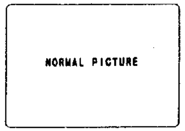


```
((ALARM/SENSOR REC))
  MODE          3H
  DURATION      3.0MIN
  BUZZER        OFF
  REPEAT IN     OFF
 (RESET PULSE)
  INPUT LEVEL   HIGH
 (CAMERA SW)
  TIMING        1FIELD
  MODE          TM2
```

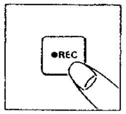
8


Set this switch to OFF.

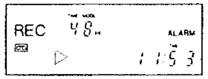
[See Note 3]



```
NORMAL PICTURE
```

9


Press this button.



10 **Recording now commences.**
Refer to page 1-8 for details on the recording procedure.
(Continued overleaf)

NOTES

[Note 1]
- Set to OFF when alarm recording is not going to be performed.
- "ALARM" appears on the display when "MODE" is set to any position other than "OFF."
- The recording time setting options are listed below:
  3-, L12-, L24-, 24-hour, NO CHANGE
  (See page 1-21)

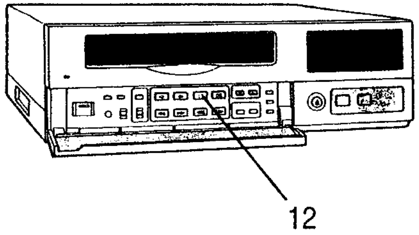
[Note 2]
The "recording duration" is the length of time during which alarm recording is executed. (See page 1-21)

[Note 3]
The settings made on the menu screens are entered when the PROGRAM switch has been set to "OFF."

[Other notes]
Besides the settings mentioned here, the following can also be set on menu screen 4.
- Buzzer ON/OFF during alarm recording (BUZZER)
- Repeat-in function setting (REPEAT IN)
- Alarm reset pulse level selection (RESET PULSE)
- Camera switchover timing (CAMERA SW)
  (See page 1-21)

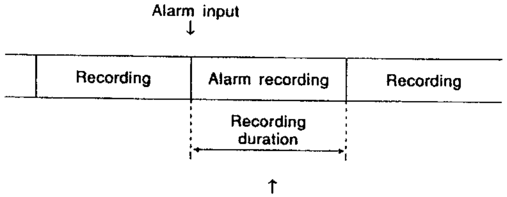
Alarm Recording

(Continued)



11

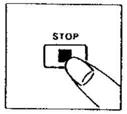
■ **The alarm recording mode is established when there is an alarm input.**


Alarm input
Recording
Alarm recording
Recording
Recording duration

Faithful recording in the time (hour) mode set

- Once an alarm recording is conducted, "alarm" flashes on the display. Pressing the stop button turns off the display.

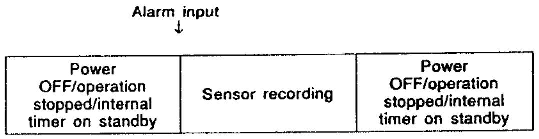
12



Press this button to stop recording.

Sensor (emergency) recording mode

- Even if the power is off or operation has stopped, sensor (emergency) recording is started as soon as there is an alarm input.
- What happens in the sensor recording and the alarm recording mode is the same.
- The sensor recording function does not work when "MODE" on menu screen 4 is set to "OFF."

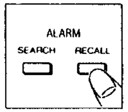

Alarm input
Power OFF/operation stopped/internal timer on standby
Sensor recording
Power OFF/operation stopped/internal timer on standby

Recording is started with the settings made on menu screen 4.

Alarm memory recall function

This function stores in the memory the dates and number of times that alarm recording has been activated.

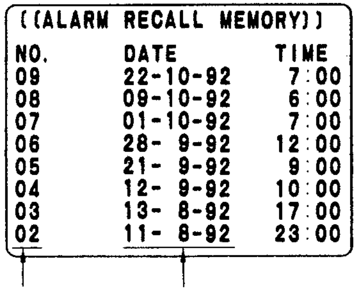
Right side of sub panel


ALARM
SEARCH
RECALL

When this is pressed, the alarm list is displayed.

- Data for the last alarm recordings (up to 8) is stored.
- The alarm count extends up to 99, after which the count returns to 00.
- The memory can be cleared by pressing the RESET button while the alarm recall screen is displayed.
- The display is cleared automatically after 30 seconds have elapsed. It is also cleared by pressing the ALARM RECALL button again.
- As with alarm recording, sensor recording data is also stored in the alarm memory.

Monitor

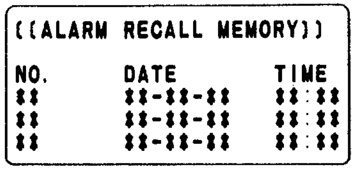


```
((ALARM RECALL MEMORY))
NO.     DATE        TIME
09      22-10-92     7:00
08      09-10-92     6:00
07      01-10-92     7:00
06      28- 9-92    12:00
05      21- 9-92     9:00
04      12- 9-92    10:00
03      13- 8-92    17:00
02      11- 8-92    23:00
```

Alarm number:
The data on the most recent alarm recordings appears in chronological order with the latest at the top.

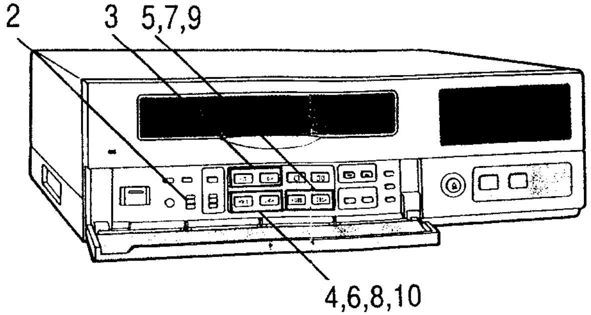
Dates and times of alarm inputs

■ The following appears on the screen when there has been no alarm recording or when the alarm memory has been reset.

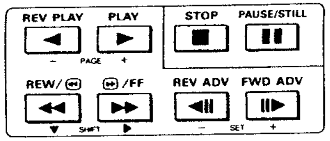


```
((ALARM RECALL MEMORY))
NO.     DATE        TIME
**      **-**-**    **:**
**      **-**-**    **:**
**      **-**-**    **:**
```

Internal Timer Recording



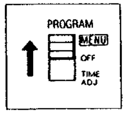
[Menu setting buttons]



PAGE (–) button:	**Page down**
PAGE (+) button:	**Page up**
SHIFT (▼) button:	**Move to item below**
SHIFT (▶) button:	**Move to item on the right**
SET (–) button:	**Change item (decrement numerical value)**
SET (+) button:	**Change item (increment numerical value)**

Using the internal timer, recording can be made to start and finish at any time settings.

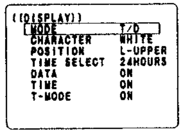
1 **Complete steps 1 and 2 on page 1-8.**

2


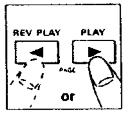
Set this switch to "MENU."

•☐ is no indication for AG-6040.

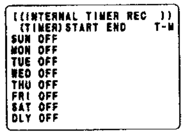
[See Note 1]



```
((DISPLAY))
 MODE          T/D
 CHARACTER     WHITE
 POSITION      L-UPPER
 TIME SELECT   24HOURS
 DATA          ON
 TIME          ON
 T-MODE        ON
```

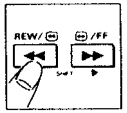
3


Press one of these buttons to display menu screen 6.

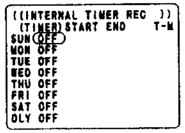


```
((INTERNAL TIMER REC  ))
 (TIMER)START END    T-M
SUN OFF
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

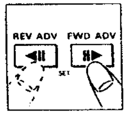
↓ This is the first step for the weekly timer setting.

4


Press this button.

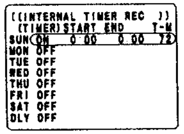


```
((INTERNAL TIMER REC  ))
 (TIMER)START END    T-M
SUN(OFF)
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

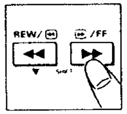
5


Press one of these buttons to select "ON."

[See Note 2]

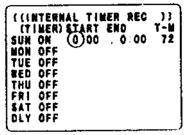


```
((INTERNAL TIMER REC  ))
 (TIMER)START END    T-M
SUN(ON    0:00   0:00  72)
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

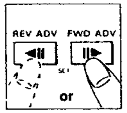
6


Press this button.

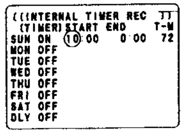
This sets the start time.



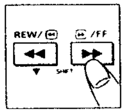
```
((INTERNAL TIMER REC  ))
 (TIMER)START END    T-M
SUN ON   (0)00 . 0:00  72
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

7


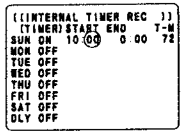
Press one of these buttons to set the "hours" of the start time.



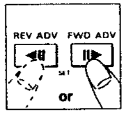
```
((INTERNAL TIMER REC  ))
 (TIMER)START END    T-M
SUN ON  (10):00   0:00  72
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

8


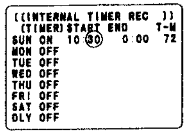
Press this button.



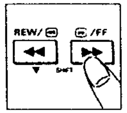
```
((INTERNAL TIMER REC  ))
 (TIMER)START END    T-M
SUN ON  10:(00)   0:00  72
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

9


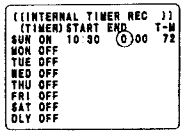
Press one of these buttons to set the "minutes" of the start time.



```
((INTERNAL TIMER REC  ))
 (TIMER)START END    T-M
SUN ON  10:(30)   0:00  72
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

10


Press this button. This sets the end time.



```
((INTERNAL TIMER REC  ))
 (TIMER)START END    T-M
SUN ON  10:30  (0)00  72
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

↓ (Continued overleaf)

NOTES

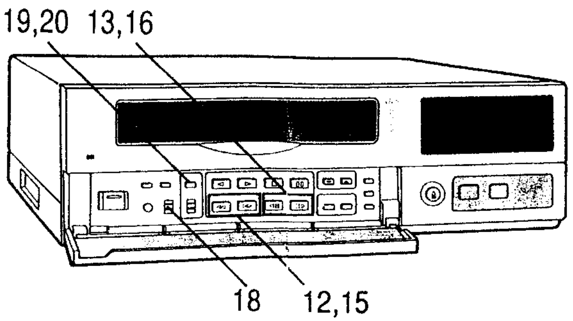
[Note 1]
The menu screen can be displayed only when the VTR is in the stop or eject mode.

[Note 2]
Keep the PROGRAM switch at the "OFF" position if timer recording is not going to be set.

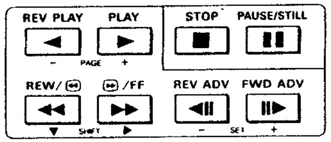
[Other notes]
Be sure to complete the date/time setting stage before setting the internal timer.

Internal Timer Recording

(Continued)



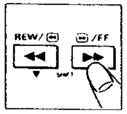
[Menu setting buttons]

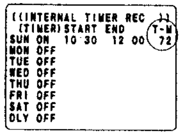


PAGE (–) button:	**Page down**
PAGE (+) button:	**Page up**
SHIFT (▼) button:	**Move to item below**
SHIFT (▶) button:	**Move to item on the right**
SET (–) button:	**Change item (decrement numerical value)**
SET (+) button:	**Change item (increment numerical value)**

11 **Set the "hours" and "minutes" of the end time in the same way as for the start time (steps 7 to 9).**

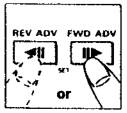
12 **Press this button.**

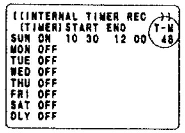




```
((INTERNAL TIMER REC ))
 (TIMER)START END   T-M
SUN ON  10 30  12 00  72
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

13 **Press one of these buttons to select the recording hour mode. [See Note 1]**





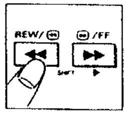
```
((INTERNAL TIMER REC ))
 (TIMER)START END   T-M
SUN ON  10 30  12 00  48
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

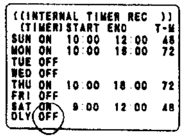
14 **Repeat steps 4 to 13 to set the recording start and end times and the recording time mode (in hours) for each day of the week.**

↑ This is the last step for the weekly timer setting. [See Note 2]

↓ This is the first step for the daily timer setting. [See Note 2]

15 **Press this button.**

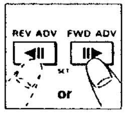


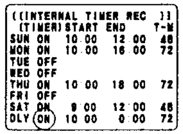


```
((INTERNAL TIMER REC ))
 (TIMER)START END   T-M
SUN ON  10:00  12:00  48
MON ON  10:00  18:00  72
TUE OFF
WED OFF
THU ON  10:00  18:00  72
FRI OFF
SAT ON   9:00  12:00  48
DLY OFF
```

16 **Press one of these buttons to select "ON."**

[See Note 3]



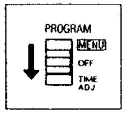


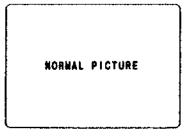
```
((INTERNAL TIMER REC ))
 (TIMER)START END   T-M
SUN ON  10 00  12 00  48
MON ON  10 00  16 00  72
TUE OFF
WED OFF
THU ON  10 00  18 00  72
FRI OFF
SAT ON   9 00  12 00  48
DLY ON  10 00   0 00  72
```

17 Repeat steps 7 to 13 to set the recording start and end times and the recording time mode (in hours) in the same way as for the weekly timer.

18 **Set this switch to the "OFF" position.**

[See Note 4]

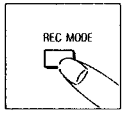


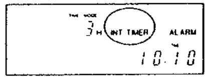


```
NORMAL PICTURE
```

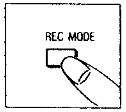
19 **Press this switch to display "INTERNAL TIMER."**

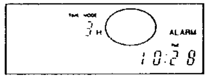
[See Note 5]





20 **To release the mode, press this switch and turn off the "INTERNAL TIMER" display.**





NOTES

[Note 1]
The daily timer takes priority in terms of the recording time mode (in hours) when daily timer and weekly timer settings overlap the same time zones. (See page 1-23)

[Note 2]
Weekly (day of the week) timer
The timer can be set for recording at different times each day of the week.

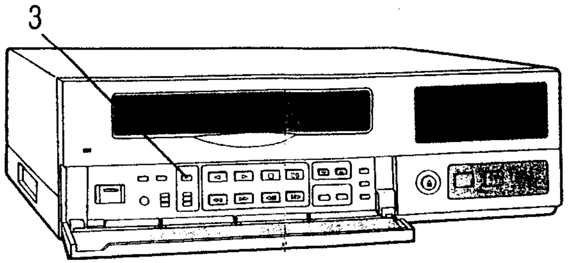
Daily (every day) timer
The timer can be set for recording at the same time every day.

[Note 3]
When the daily timer is not going to be set, press one of the buttons in step 16 and set "OFF."

[Note 4]
The settings made on the menu screen are entered when the PROGRAM switch is returned to the "OFF" position. Once set and entered, the settings are retained semi-permanently.

[Note 5]
When the recording mode is set to "INTERNAL TIMER," the power is switched off. At the set time, recording will start automatically.

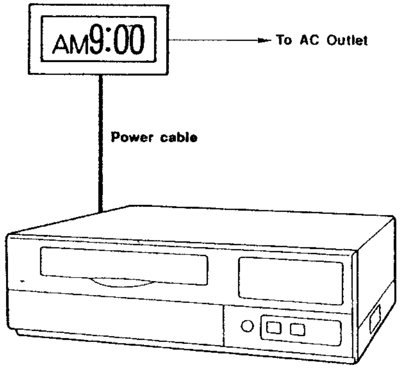
External Timer Recording



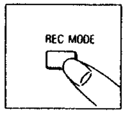
By connecting an externa timer to the VTR, the power to the VTR can be switched ON and OFF to perform timer recordings.

1 **Complete step 1 to 4 on page 1-8.**

2 **Connect the external timer.**

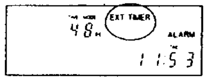


■ Leave the VTR's power on until the setting procedure is completed.

3 

Press this button to display "EXTERNAL TIMER."

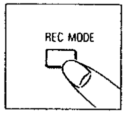
[See Note 1]



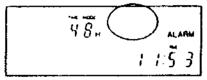
4 **Set the external timer.**

[See Note 2]

5 **Recording starts at the time set by the external timer.**

6 

To release the mode, press this button with power supplied to the VTR and clear the "EXTERNAL TIMER" display.



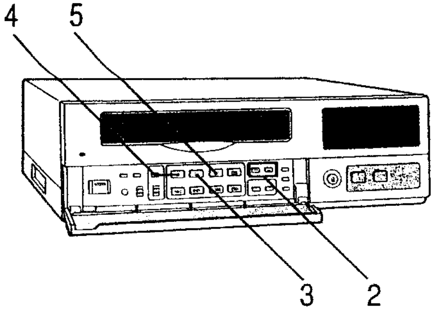
NOTES

[Note 1]
When a cassette has not been installed or when the accidental erasure prevention tab on the cassette installed has been broken out, the buzzer sounds and "EXTERNAL TIMER" flashes.

[Note 2]
For details on how to set the external timer, refer to the operating instructions accompanying the timer.

[Other notes]
In the external timer recording mode, sensor recording will not start even with an alarm input if the VTR's main power is OFF.

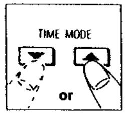
Playback



This operation visually displays what has been recorded.

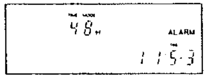
1
- **Complete the connections and ready the units connected for operation.** (See page 1-30)
- **Turn on the power.**
- **Install a prerecorded cassette.**

2

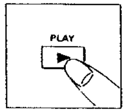


Press one of these buttons to select the time (hour) mode.

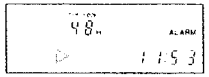
[See the section on the time modes on the right-hand page.]



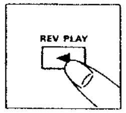
3



Press this button for regular playback.



4

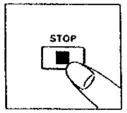


Press this button for reverse playback.

Reverse playback of 1-shot recording is not possible.

48H
ALARM
11:53

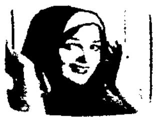
5

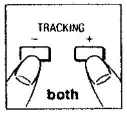


Press this button to stop playback.

Tracking adjustment

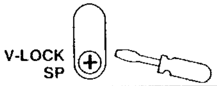
Adjust the tracking if noise similar to that shown below appears on the playback picture.





- This VTR comes with an auto tracking function to obviate the need to adjust the tracking under normal circumstances. However, should noise similar to that shown on the left appear, re-adjust the tracking.
- Press the "+" and "–" buttons at the same time. If noise still appears, press the "+" and "–" buttons separately.

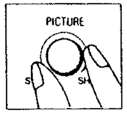
Vertical Lock Adjustment (model AG-6040 only)



If picture jitters vertically in the Still mode, adjust the V-Lock Control on the bottom panel of VTR using the screwdriver. If the TV Monitor has a vertical hold control, adjust the control together with the V-Lock Control.

Picture quality adjustment

When adjusting the playback picture:



- Turning the control clockwise yields a sharply defined picture.
- Turning the control counterclockwise yields a softly defined picture.

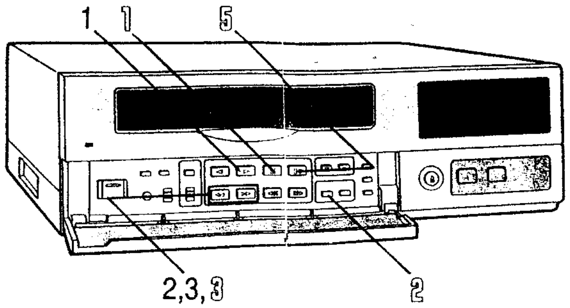
Time modes

- Bear in mind the following points when playing back an intermittently recorded tape in the same time mode.
  - The picture may shake slightly in the lateral direction but this is not indicative of malfunctioning.
  - There may be some slight distortion at the top of the picture but this is not indicative of malfunctioning.
  - The picture may dance in both L12 and L24 modes. This is normal and not indicative of malfunctioning.
  - The sound is not reproduced perfectly. This is normal and not indicative of malfunctioning.
- Still picture
  A clear picture image can be obtained by playing back a recorded tape in the same time mode.
- When a tape recorded in a 12H or longer mode is played back in the 3H mode, it can be played back at quick motion.
- If, when the sound was recorded, the mode in which the sound was recorded differs from the mode in which it is played back, the pitch of the sound will also change.

Other notes

- No sound will be heard during reverse playback.
- Reverse playback is not possible with the tape recorded in the 1-shot recording mode.
- The picture may dance while the tape is being played back in any L (linear slow) mode. This is normal and not indicative of a failure.

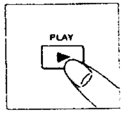
Search Operations



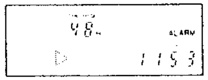
These operations are for initiating search playback and alarm search playback.

■ Search playback (search forward/search reverse)

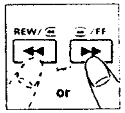
1



Press this button to start playback.



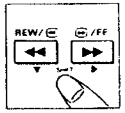
2



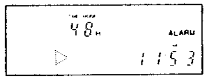
Keep one of these buttons depressed.

[See Note 1]

3



Release the button to return to regular playback.

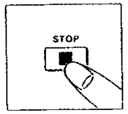


■ To continue the search operation, establish the alarm search mode. (See right-hand page)

- If the fast forward or rewind button is pressed during playback, the search operation is performed continuously.
- When the play button is pressed again, operation returns to regular playback.

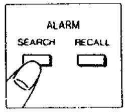
■ Alarm search procedure

1



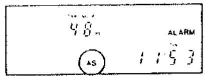
Press this button and set the VTR to the stop mode.

2

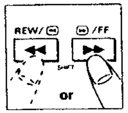


Press this button to display "AS."

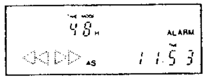
[See Note 2]



3



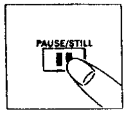
Press one of these buttons to fast forward or rewind the tape.



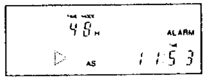
4

■ The first alarm recorded section on the tape is searched in the direction corresponding to the button pressed, and the VTR is set to the still-picture playback mode.
[See Note 3]

5



Press this button to play back the section.



NOTES

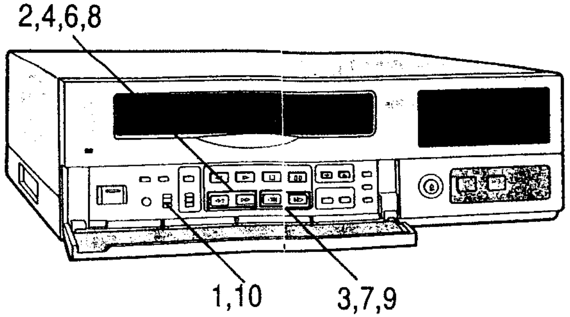
[Note 1]
If the REW button is pressed during search playback, the tape will be played back in the reverse direction at 7 times the regular tape speed; if the FF button is pressed instead, it will be played back in the forward direction at 7 times the regular tape speed.

[Note 2]
To release the alarm search mode, press the ALARM SEARCH button again and clear "AS" from the display.

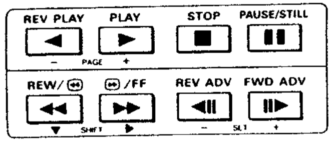
[Note 3]
Only an alarm recorded section which was recorded in the 3H mode can be searched using the alarm search function.

1-10. Time & Date Setting

Time & Date Setting


2,4,6,8
1,10
3,7,9

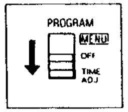
[Time setting buttons]


REV PLAY
PLAY
STOP
PAUSE/STILL
– PAGE +
REW/
/FF
REV ADV
FWD ADV
▼ SHIFT ▶
– SET +

SHIFT (▼) button:	Move to item below
SHIFT (▶) button:	Move to item on the right
SET (–) button:	Change item (decrement numerical value)
SET (+) button:	Change item (increment numerical value)

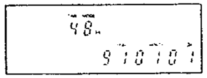
This section describes how the time and date are set.

1

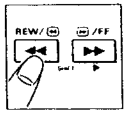

PROGRAM
MENU
OFF
TIME ADJ

Set this switch to "TIME ADJ."

[See Notes 1, 2 and 3]

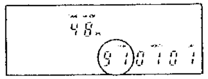


2

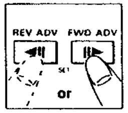


Press this button.

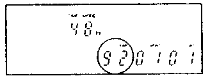
"Year" flashes.



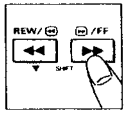
3


REV ADV
FWD ADV
or

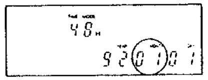
Press one of these buttons to set the number for the year.



4

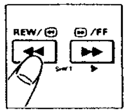


Press this button.



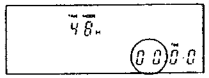
5 **Repeat steps 3 and 4 to set the month and then the day.**

6

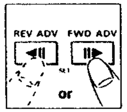


Press this button after the date (year/month/day) has been set.

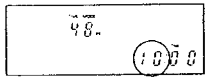
[See Note 4]



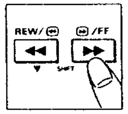
7


REV ADV
FWD ADV
or

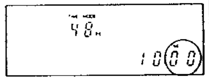
Press one of these buttons to set the "hours."



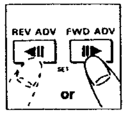
8



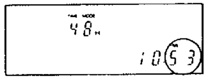
Press this button once.



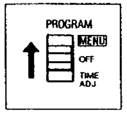
9


REV ADV
FWD ADV
or

Press one of these buttons to set the "minutes."

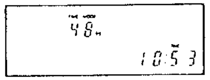


10


PROGRAM
MENU
OFF
TIME ADJ

Set this switch to "OFF."

[See Note 5]



NOTES

[Note 1]
If the time is set during recording, the screen on which the time was set will be recorded.

[Note 2]
The screen appears below on the TV monitor.

TIME ADJUST
01- 1-92 WED
0 00:00

[Note 3]
The default display is 01 1 92 (January 1, 1992). The date can be set up to 31 12 07 (December 31, 2007).

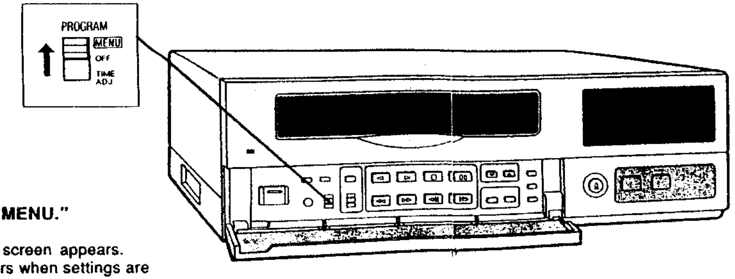
[Note 4]
The default display is 00:00:00. The maximum time which can be displayed is 23:59:59 (although only the hours and minutes actually appear on the display).

[Note 5]
The time starts elapsing from the moment that step 10 is performed. The time can be set accurately if the switch is set to "OFF" as soon as the time signal is heard.

[Other notes]

- The maximum monthly time error is 60 seconds.
- The time and date data will be retained in the event of a power failure provided that it does not last longer than one month (AG-6730) or one week (AG-6040). (For the data to be retained, power must have been supplied for at least 40 hours.)
- Adjustment for leap years is automatic.

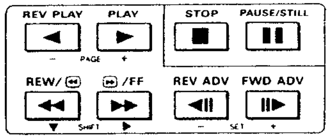
Menu Screens



Set the switch to "MENU."

- The previous setting screen appears.
- Menu screen 1 appears when settings are to be performed for the first time.

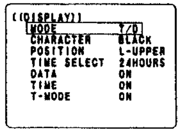
[Menu setting buttons]



PAGE (–) button: **Page down**
PAGE (+) button: **Page up**
SHIFT (▼) button: **Move to item below**
SHIFT (▶) button: **Move to item on the right**
SET (–) button: **Change item (decrement numerical value)**
SET (+) button: **Change item (increment numerical value)**

The VTR's many functions can be set on-screen.

■ Menu screen 1 (screen display settings)

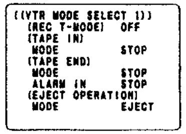


```
((DISPLAY))
  MODE            T/D
  CHARACTER       BLACK
  POSITION        L-UPPER
  TIME SELECT     24HOURS
  DATA            ON
  TIME            ON
  T-MODE          ON
```

The information displayed on the TV monitor is set on this screen.

- ☐ is no indication for AG-6040.

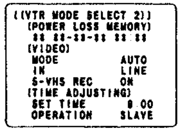
■ Menu screen 2 (VTR mode settings 1)



```
((VTR MODE SELECT 1))
  (REC T-MODE)   OFF
  (TAPE IN)
   MODE          STOP
  (TAPE END)
   MODE          STOP
   ALARM IN      STOP
  (EJECT OPERATION)
   MODE          EJECT
```

- Recording time mode setting
- Setting for operation when cassette is installed
- Tape-end operation settings
- Eject operation setting

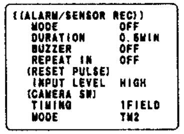
■ Menu screen 3 (VTR mode settings 2)



```
((VTR MODE SELECT 2))
  (POWER LOSS MEMORY)
   88 88-88-88 88:88
  (VIDEO)
   MODE          AUTO
   IN            LINE
   S-VHS REC     ON
  (TIME ADJUSTING)
   SET TIME       8.00
   OPERATION     SLAVE
```

- Power loss memory display
- Video signal selection (model AG-6730 only)
- Time adjustment function settings (model AG-6730 only)

■ Menu screen 4 (alarm recording mode settings)

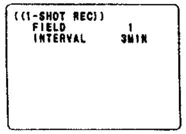


```
((ALARM/SENSOR REC))
   MODE          OFF
   DURATION      0.5MIN
   BUZZER        OFF
   REPEAT IN     OFF
  (RESET PULSE)
   INPUT LEVEL   HIGH
  (CAMERA SW)
   TIMING        1FIELD
   MODE          TM2
```

- Alarm recording mode settings
- Reset pulse selection
- Camera switch setting

■ Menu screen 5 (1-shot recording mode settings)

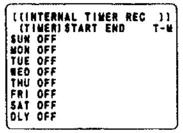
(model AG-6730 only)



```
((1-SHOT REC))
   FIELD          1
   INTERVAL      3MIN
```

- 1-shot recording mode setting

■ Menu screen 6 (internal timer recording mode settings)



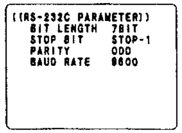
```
((INTERNAL TIMER REC  ))
 (TIMER)START END     T-M
SUN OFF
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

- Daily timer settings
- Weekly timer settings

■ The menu screens below appear only when the optional RS-232C Interface Adaptor AG-IA670 is installed.

(See page 1-35)

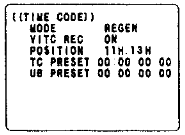
■ Menu screen 7 (RS-232C parameter settings)



```
((RS-232C PARAMETER))
   BIT LENGTH   7BIT
   STOP BIT     STOP-1
   PARITY       ODD
   BAUD RATE    9600
```

- RS-232C parameter settings

■ Menu screen 8 (time code settings)



```
((TIME CODE))
   MODE         REGEN
   VITC REC     ON
   POSITION     11H.13H
   TC PRESET 00 00 00 00
   UB PRESET 00 00 00 00
```

- Time code settings

NOTES

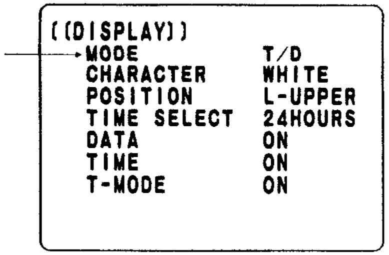
- The menu screens can be displayed only when the VTR is in the stop or eject status.
- Menu screen setting method

1) Set the PROGRAM switch to "MENU."
2) Use the "+" and "–" buttons to select the desired menu screen. The page following the last page is the first page; the page before the first page is the last page.
3) The first line flashes when the (▼) SHIFT button is pressed.
4) Select the setting items using the (▼) and (▶) SHIFT buttons.
5) Use the "+" and "–" SET buttons for the settings.
6) Upon completion of the settings, return the PROGRAM switch to the "OFF" position. The item settings will now be entered.

Menu Screen 1

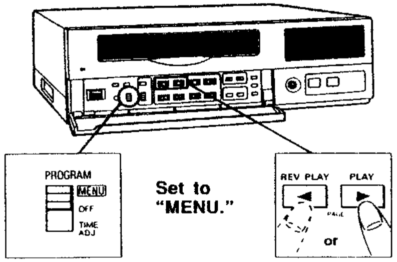
(Screen display settings)

AG-6730 only



```
[[DISPLAY]]
MODE          T/D
CHARACTER     WHITE
POSITION      L-UPPER
TIME SELECT   24HOURS
DATA          ON
TIME          ON
T-MODE        ON
```

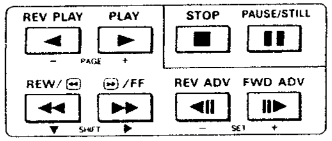
[Displaying the screens]



Set to "MENU."

Press one of these buttons until the desired menu screen appears.

[Menu setting buttons]



PAGE (–) button:	**Page down**
PAGE (+) button:	**Page up**
SHIFT (▼) button:	**Move to item below**
SHIFT (▶) button:	**Move to item on the right**
SET (–) button:	**Change item (decrement numerical value)**
SET (+) button:	**Change item (increment numerical value)**

What is displayed on the TV monitor is set on this screen.

■ Display mode selection (for model AG-6730 only; fixed at T/D for model AG-6040)

1 MODE

Select the screen which is to be usually displayed.

T/D:	Time and date display screen
LAP:	Lap time display screen
PAGE:	Page count display screen [see Note 1] (This appears only when the time mode has been set to "000H.")

■ Display character type selection

2 CHARACTER

Select the type of characters to be displayed.
WHITE: White characters = ABCDF
BLACK: Outline characters = ABCDF

■ Display position selection

3 POSITION

Select the display position.

L-UPPER:	Upper left
R-UPPER:	Upper right
L-BOTTOM:	Bottom left
R-BOTTOM:	Bottom right
CENTRE:	Centre

L-U R-U
CENTRE
L-B R-B

■ Time display mode selection

4 TIME SELECT

Select whether the time is to be displayed on a 24-hour or AM/PM basis.

24 HOURS:	24-hour basis = 22:10:45
AM/PM:	AM/PM basis = 10:10:45P

■ Date display ON/OFF

5 DATA

Set the date display ON or OFF.

■ Time display ON/OFF

6 TIME

Set the time display ON or OFF.

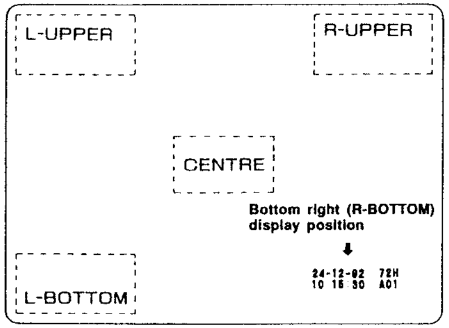
■ Time mode display ON/OFF

7 T-MODE

Set the time mode display ON or OFF.

■ Regular screen

TV monitor



NOTES

[Note 1]
Time and date display screen

Date Time (hour) mode

24-12-92 72H
10:15:30 A01

Time Alarm count

Lap time display screen
(model AG-6730 only)
The total recording time starting from the point in time when recording commenced is indicated in a second increments regardless of the present time. (The recording time is not incremented in the recording pause mode.)

LAP 0:00:00

When the RESET button is pressed, the lap time display can be reset to "0:00:00".

Page count display screen
(model AG-6730 only)
During 1-shot recording, each frame recorded counts as a page, and the total number of pages (frames) is displayed on this screen. (For details on 1-shot recording, see page 1-22, 1-27.)

999999

When the RESET button is pressed, the page count display can be reset to "0."

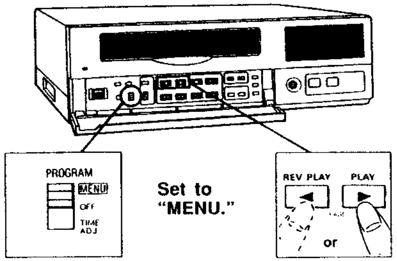
[Other notes]
The item settings are entered when the PROGRAM switch is returned to the "OFF" position.

Menu Screen 2

(VTR mode settings 1)

```
[[VTR MODE SELECT 1]]
 [REC T-MODE]   OFF
 [TAPE IN]
 MODE           STOP
 [TAPE END]
 MODE           STOP
 ALARM IN       STOP
 [EJECT OPERATION]
 MODE           EJECT
```

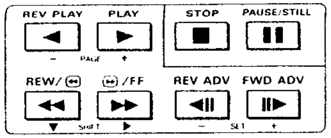
[Displaying the screens]



Set to "MENU."

Press one of these buttons until the desired menu screen appears.

[Menu setting buttons]



PAGE (–) button: Page down
PAGE (+) button: Page up
SHIFT (▼) button: Move to item below
SHIFT (▶) button: Move to item on the right
SET (–) button: Change item (decrement numerical value)
SET (+) button: Change item (increment numerical value)

The VTR mode settings are performed on this screen.

■ Recording time mode selection

1 REC T-MODE

The recording time mode is set.
When the recording is started, the unit is always placed in the time mode which was set.

OFF: The time mode can be set as desired using the time mode button on the VTR's sub panel. The mode can be changed even during recording.
3H: 3-hour mode (compatible with the standard mode of ordinary VTRs).
L12H: 12-hour mode (linear slow recording)
L24H: 24-hour mode (linear slow recording)
24H: 24-hour mode (time lapse recording at 0.18 sec. intervals)
48H: 48-hour mode (time lapse recording at 0.34 sec. intervals)
72H: 72-hour mode (time lapse recording at 0.5 sec. intervals)
84H: 84-hour mode (time lapse recording at 0.58 sec. intervals)
120H: 120-hour mode (time lapse recording at 0.82 sec. intervals)
180H: 180-hour mode (time lapse recording at 1.22 sec. intervals)
240H: 240-hour mode (time lapse recording at 1.62 sec. intervals)
480H: 480-hour mode (time lapse recording at 3.22 sec. intervals)
000H: 1-shot recording mode (see page 1-22, 1-27).

[See Notes 1 and 2]

■ Sound cannot be recorded in the time lapse recording or 1-shot recording modes.

■ Selection of operation when cassette is installed

2 [TAPE IN] MODE

Select how the VTR is to operate when the cassette is installed.
STOP: Stop mode
REC: Automatic recording mode [see Note 3]
AUTO: When a cassette tape is loaded, it is first rewound to its beginning and then recording is commenced automatically.

■ Selection of operation at tape-end

3 [TAPE END] MODE

Select how the VTR is to operate at the tape-end.
STOP: Stop mode
BUZZER: Stop and the buzzer sounds.
REW: Automatic rewinding mode [see Note 4]
REPEAT: Repeat recording mode [see Note 5]

■ Setting auto rewind function release when an alarm input is generated

4 [TAPE END] ALARM IN

This setting selects whether the auto rewind function is to be released when there is an alarm input while recording is in progress.
STOP: The auto rewind function is released. The VTR is set to the stop mode at the tape-end.
CONTINUE: The auto rewind function is not released.

■ Selection of cassette EJECT button

5 [EJECT OPERATION] MODE

Select the operation which is to be performed when the EJECT button is pressed.
EJECT: The cassette is ejected as soon as the button is pressed.
AUTO: When the button is pressed, the tape is automatically rewound to its start before the cassette is ejected.

NOTES

[Note 1]
The VTR's time (hour) modes are based on the use of a 3-hour tape. If the cassette used has a different duration, the hour modes will be as follows:

- 120-minute tape: 2/3 of selected time
- 90-minute tape: 1/2 of selected time
- 60-minute tape: 1/3 of selected time
- 30-minute tape: 1/6 of selected time

[Note 2]
Linear slow recording
With this kind of recording, the tape travel speed is reduced and the sound is recorded continuously. (Sound can be recorded.)

Time lapse recording
Long-duration recording is possible by recording while advancing the tape intermittently. (Sound cannot be recorded.)

[Note 3]
Automatic recording mode
Recording is started automatically just by installing the cassette.

[Note 4]
Auto rewind function
When the tape reaches its end during recording, it is automatically rewound to its start.

[Note 5]
Auto repeat recording function
When the tape reaches its end during recording, it is automatically rewound to its start and recorded again (or repeatedly).

[Other notes]
The item settings are entered when the PROGRAM switch is returned to the "OFF" position.

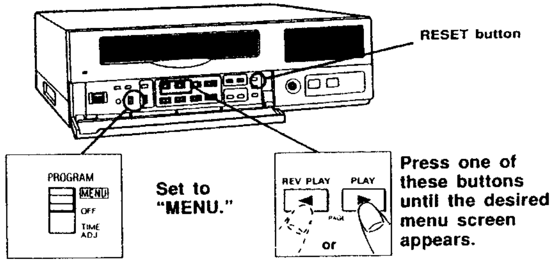
Menu Screen 3

(VTR mode settings 2)

```
((VTR MODE SELECT 2))
  (POWER LOSS MEMORY)
   ** **-**-** **:**
  (VIDEO)
   MODE           AUTO
   IN             LINE
   S-VHS REC      ON
  (TIME ADJUSTING)
   SET TIME        9:00
   OPERATION      SLAVE
```

AG-6730 only

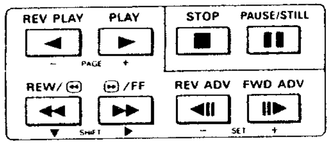
[Displaying the screens]



Set to "MENU."

Press one of these buttons until the desired menu screen appears.

[Menu setting buttons]



PAGE (–) button: Page down
PAGE (+) button: Page up
SHIFT (▼) button: Move to item below
SHIFT (▶) button: Move to item on the right
SET (–) button: Change item (decrement numerical value)
SET (+) button: Change item (increment numerical value)

The VTR mode settings are performed on this screen.

■ Power loss memory display [See Note 1]

1 `(POWER LOSS MEMORY)`

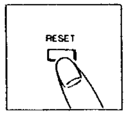
This screen displays the power loss memory.

- When the SHIFT (▼) button is pressed so that the number flashes and then the SET "+" or "–" button is pressed, data in the memory on up to the last four power failures is indicated in sequence.
- The power loss memory data can be cleared as below.

`06 25-12-02 2 08`

While flashing

⬇



Press this button

⬇

`** **-**-** **:**`

The memory is now cleared.

- The following display appears for the power loss memory data if the time/date has not been set or when there is no data in the memory.

`** **-**-** ** **`

■ Selecting the video signal mode

2 `(VIDEO) MODE`

Select the operation of the auto colour/b&w selector circuit.
AUTO: The circuit is automatically switched to colour or black-and-white, whichever corresponds to the input signal. (Regular setting) [See Note 1]
COLOUR: For colour signal input only
B/W: For black-and-white signal input only [See Note 2]

■ Selecting the input video signal (model AG-6730 only)

3 `(VIDEO) IN`

Select the input video signal.
LINE: The signal supplied to the video input connector (line) serves as the input video signal.
S-VIDEO: The signal supplied to the S video connector serves as the input signal.

■ Setting the S-VHS recording mode (model AG-6730 only)

4 `S-VHS REC`

Select the S-VHS recording mode.
ON: Whether the tape is VHS or S-VHS is automatically identified, and recording proceeds in the corresponding mode.
OFF: Recording always proceeds in the VHS mode regardless of the type of cassette used. During playback, the tape type is automatically identified.

■ Time adjust function time setting (model AG-6730 only)

5 `(TIME ADJUST) SET TIME`

Set the time.
Only the "hours" can be set.
The "minutes" remains at "00."

Set the time using the set "+" or "–" button.

■ Time adjust function selection (model AG-6730 only) [See Note 4]

6 `(TIME ADJUST) OPERATION`

Select the time adjust function.
SLAVE: The VTR's time is set by the external switch or master VTR.
MASTER: Using the VTR as the master clock, the time of another VTR is set.

NOTES

[Note 1]
Power loss memory
When power failures have occurred, the number of occurrences together with their dates and times are counted up to a maximum of 99 times, and the data of the 4 most recent occurrences is stored in the memory.

[Note 2]
Do not mix black-and-white and colour signals when supplying them to the video input connectors. This will cause sync fluctuations and generate noise.

[Note 3]
When supplying signals which may cause the circuit to make an error in its automatic identification, set to COLOUR for colour signals and to B/W for black-and-white signals. When colour signals are supplied with a B/W setting or black-and-white signals are supplied with a COLOUR setting, unnatural video signals will be recorded.

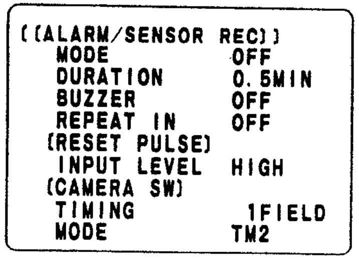
[Note 4]
SLAVE mode
- When the rear panel's time adjust input terminal is shorted to ground, the VTR's time is set to the time established in step 5, and pulses (L) are output from the time adjust output terminal.

MASTER mode
- Pulses (L) are output from the time adjust output terminal when the VTR's time tallies with the set time.

[Other notes]
The item settings are entered when the PROGRAM switch is returned to the "OFF" position.

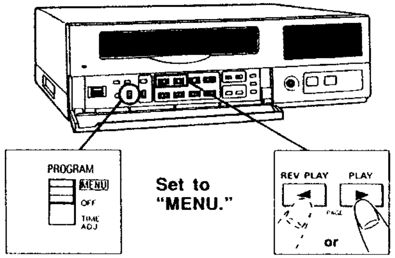
Menu Screen 4

(Alarm recording mode settings)



```
〔〔ALARM/SENSOR REC〕〕
  MODE          OFF
  DURATION      0.5MIN
  BUZZER        OFF
  REPEAT IN     OFF
〔RESET PULSE〕
  INPUT LEVEL   HIGH
〔CAMERA SW〕
  TIMING         1FIELD
  MODE          TM2
```

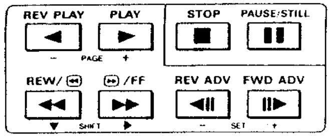
[Displaying the screens]



Set to "MENU."

Press one of these buttons until the desired menu screen appears.

[Menu setting buttons]

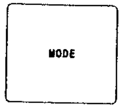


PAGE (–) button:	**Page down**
PAGE (+) button:	**Page up**
SHIFT (▼) button:	**Move to item below**
SHIFT (▶) button:	**Move to item on the right**
SET (–) button:	**Change item (decrement numerical value)**
SET (+) button:	**Change item (increment numerical value)**

The alarm recording mode settings are performed on this screen.

■ Selecting the alarm recording time mode

1



```
MODE
```

Select the recording time mode when an alarm input is received.

OFF:	No alarm recording.
3H:	3-hour mode
L12H:	12-hour mode (linear slow)
L24H:	24-hour mode (linear slow)
24H:	24-hour mode (time lapse)
NO CHANGE:	The recording time remains unchanged even if there is an alarm input.

Alarm input
← Tape start ↓ Tape end →

Recording	Alarm recording mode	Recording

• When there is an alarm input during recording in one of the time lapse modes, the recording time mode switches to the designated mode and the emergency scene is faithfully recorded.

■ Setting the alarm recording duration

2

```
DURATION
```

Set how long the alarm recording is to last from the start to the end.

0.5MIN-3.0MIN:	The time can be set in 30-second increments from 0.5 to 3 minutes.
CONTINUE:	Alarm recording continues until the tape-end.
MANUAL:	Alarm recording is performed while the alarm input continues to be received.

■ Buzzer ON/OFF

3

```
BUZZER
```

Set whether the buzzer is to sound during alarm recording.

OFF: The buzzer does not sound.
ON: The buzzer sounds while alarm recording is in progress.

• Press any function button to release the buzzer.

■ Setting the repeat-in function

4

```
REPEAT IN
```

Set whether alarm recording is to proceed when there has been an alarm input while the tape was being rewound automatically in the recording mode.

OFF: No alarm recording.
ACCEPT: Alarm recording [See Note 1]

■ Selecting the alarm reset pulse acceptance level

5

```
〔RESET PULSE〕
 INPUT LEVEL
```

Select the acceptance level of the alarm reset pulse.

HIGH: The high level is set.
LOW: The low level is set. (See page 1-33)

■ Setting the timing

6

```
〔CAMERA SW〕
 TIMING
```

Set the camera switchover timing signal which is to be output by the external sequential switcher during recording.

The cameras are switched every 1-, 2-, 3-, 4-, 5-, 10-, 20-, 25- or 50-fields. [See Note 2]

■ Selecting the camera switchover mode

7

```
〔CAMERA SW〕
 MODE
```

Select whether the camera switching is to be done in field or frame units. [See Note 3]

TM2: Switching in field units.
TM1: Switching in frame units.

NOTES

[Note 1]
When "ACCEPT" is selected in the repeat-in function, be sure to set to other modes than "OFF" in step 1.

[Note 2]
When "TM1" has been selected as the camera switchover mode in step 7, the cameras are switched in frame units.

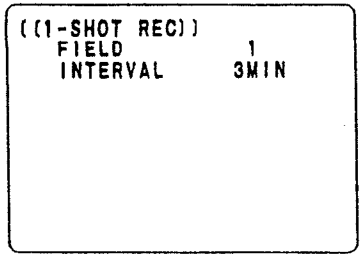
[Note 3]
Select "TM1" when the frame switcher is connected and "TM2" when any other sequential switcher is connected.

[Other notes]
The item settings are entered when the PROGRAM switch is returned to the "OFF" position.

Menu Screen 5

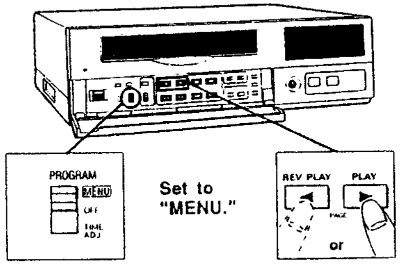
(1-shot recording mode setting)

(Model AG-6730 only)



```
((1-SHOT REC))
 FIELD          1
 INTERVAL    3MIN
```

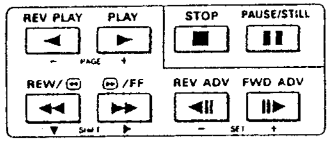
[Displaying the screens]



Set to "MENU."

Press one of these buttons until the desired menu screen appears.

[Menu setting buttons]



PAGE (–) button:	**Page down**
PAGE (+) button:	**Page up**
SHIFT (▼) button:	**Move to item below**
SHIFT (▶) button:	**Move to item on the right**
SET (–) button:	**Change item (decrement numerical value)**
SET (+) button:	**Change item (increment numerical value)**

The alarm recording mode settings are performed on this screen.

■ Selecting the 1-shot recording time

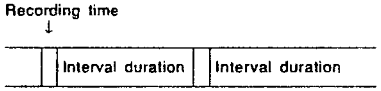
1 FIELD

Select the time for recording one frame in the 1-shot recording mode in field units: 1, 2, 3, 4, 5, 10, 15, 20, 25, 30, 40, 50. [See Note 1]

■ Setting the interval time for 1-shot recording

2 INTERVAL

Set the duration of the intervals for 1-shot recording.
1: 1-shot recording at 1-minute intervals.
2: 1-shot recording at 2-minute intervals.
3: 1-shot recording at 3-minute intervals.



■ For model AG-6040

The 1-shot recording mode for the model AG-6040 is fixed to the settings given below.

- Time for recording one frame: 1 field
- Interval duration: 3 minutes

■ The lengths of time during which recording can be performed in the 1-shot recording mode are as follows (using a 180-minute tape).

		Interval duration (minutes)		
		1	2	3
Time for recording one frame (in fields)	1	9,000	18,000	27,000
	2	4,575	9,075	13,575
	3	3,100	6,100	9,100
	4	2,362	4,612	6,862
	5	1,920	3,720	5,520
	10	1,035	1,935	2,835
	20	592	1,042	1,492
	25	504	864	1,224
	50	327	507	687

Unit (hours)

NOTES

[Note 1]
The recording interval per field among the fields set is one second.

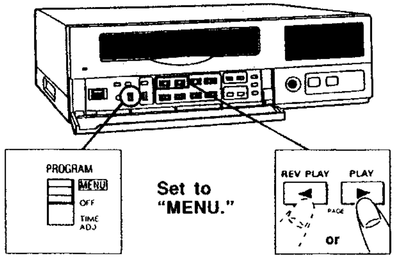
[Other notes]
The item settings are entered when the PROGRAM switch is returned to the "OFF" position.

Menu Screen 6

(Internal timer recording mode settings)

```
((INTERNAL TIMER REC  ))
 (TIMER) START END    T-M
SUN OFF
MON OFF
TUE OFF
WED OFF
THU OFF
FRI OFF
SAT OFF
DLY OFF
```

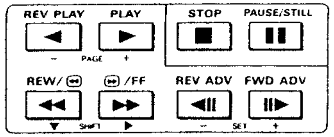
[Displaying the screens]



Set to "MENU."

Press one of these buttons until the desired menu screen appears.

[Menu setting buttons]



PAGE (–) button:	**Page down**
PAGE (+) button:	**Page up**
SHIFT (▼) button:	**Move to item below**
SHIFT (▶) button:	**Move to item on the right**
SET (–) button:	**Change item (decrement numerical value)**
SET (+) button:	**Change item (increment numerical value)**

The internal timer recording modes are set on this screen.

■ Internal timer mode ON/OFF

1

```
(TIMER)
SUN ON
```

Set the internal timer mode ON or OFF.

ON: The internal timer recording mode is established.

OFF: The internal timer recording mode is not established.

■ Setting the timer recording start time

2

```
START
0 00
```

Set the time at which the internal timer recording is to start.

Select the setting items using the SHIFT buttons and set the numerical values using the SET buttons.

■ Setting the timer recording end time

3

```
END
0 00
```

Set the time at which the internal timer recording is to end.

Select the setting items using the shift buttons and set the numerical values using the SET buttons.

■ Setting the recording time mode

4

```
T-M
72
```

Set the recording time mode for internal timer recording.

3H, L12H, L24H, 24H, 48H, 72H, 84H, 120H, 180H, 240H, 480H, 000H

■ Weekly timer recording

The internal timer recording start and end times can be set once a day for each day of the week from Sunday through Saturday.

For each day of the week, set the internal timer ON/OFF mode, recording start and end times, and recording mode.

```
(TIMER)  START  END  T-M
SUN ON    8 00   8 00  72
MON ON   12 00  14 00  72
TUE OFF
WED OFF
THU ON   14 00  23 00  72
FRI OFF
SAT ON   18 00   8 00  48
```

■ Daily timer recording

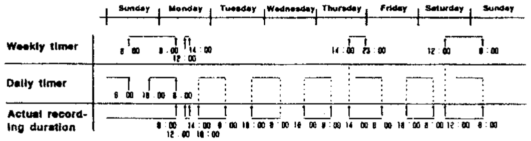
Internal timer recording can be started and ended at the the same preset times every day.

```
DLY ON  18 00   8 00
```

■ Using the weekly and daily timers in combination

```
((INTERNAL TIMER REC  ))
 (TIMER) START END    T-M
SUN ON    8:00   8 00  72
MON ON   12:00  14:00  72
TUE OFF
WED OFF
THU ON   14 00  23 00  72
FRI OFF
SAT ON   12 00   8.00  48
DLY ON   18 00   8 00  72
```

When the settings are as per the screen shown on the left, the weekly and daily timer recording and the actual recording durations on the tape will be as follows.



■ If the recording times overlap in places between the weekly and daily settings, the daily timer recording time (hour) mode takes precedence.

NOTES

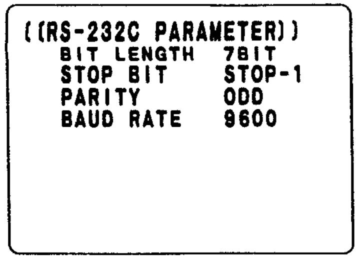
[Notes]

- Internal timer recording is not activated if the date and time have not been set.
- The time setting display (24-hour or PM/AM basis) accords with the mode assigned by the time/date setting.
- If the internal timer mode is set "OFF" after the start and end times have been set with the mode "ON", the time setting display will be cleared but will then re-appear when the mode is set back to "ON."
- When the weekly timer and daily timer recording functions are used in combination, the time mode set for the daily timer recording takes precedence if there should be any overlap between the two time settings.
- The item settings are entered when the PROGRAM switch is returned to the "OFF" position.

■ This screen appears only when the optional RS-232C connector has been installed.

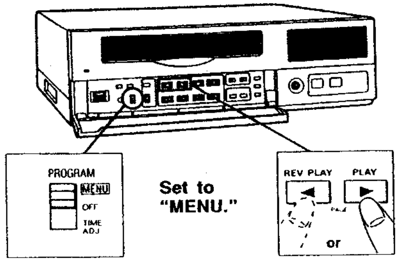
Menu Screen 7

(RS-232C parameter setting)



```
((RS-232C PARAMETER))
 BIT LENGTH   7BIT
 STOP BIT     STOP-1
 PARITY       ODD
 BAUD RATE    9600
```

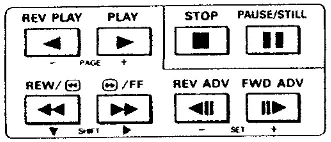
[Displaying the screens]


PROGRAM
MENU
OFF
TIME ADJ
REV PLAY
PLAY
or

Set to "MENU."

Press one of these buttons until the desired menu screen appears.

[Menu setting buttons]


REV PLAY
PLAY
– PAGE +
STOP
PAUSE/STILL
REW/⊖
⊕/FF
REV ADV
FWD ADV
▼ SHIFT ▶
– SET +

PAGE (–) button:	**Page down**
PAGE (+) button:	**Page up**
SHIFT (▼) button:	**Move to item below**
SHIFT (▶) button:	**Move to item on the right**
SET (–) button:	**Change item (decrement numerical value)**
SET (+) button:	**Change item (increment numerical value)**

The parameter setting for data exchange in RS-232C format can be made in this menu.

■ Setting the character length

1 BIT LENGTH

Set the character length.
7BIT: 7 bits
8BIT: 8 bits

[see Note 1]

■ Setting the stop bit

2 STOP BIT

Set the stop bit.
STOP-1: 1 bit
STOP-2: 2 bits

[see Note 2]

■ Setting the parity bit

3 PARITY

Set the parity bit
ODD: Odd number
EVEN: Even number
NONE: None

[see Note 3]

■ Setting the baud rate

4 BAUD RATE

Set the baud rate (data transmission speed).
1200: 1200 bits per second
2400: 2400 bits per second
4800: 4800 bits per second
9600: 9600 bits per second

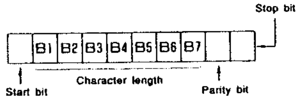
[see Note 4]

■ RS-232C

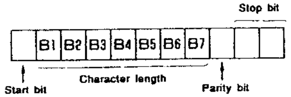
"RS-232C" is an interface standard for data terminals and data communications equipment employing serial binary data exchange as stipulated under the RS-232 CCIR standard. Using this RS-232C interface, this VTR can be controlled by a personal computer.

■ Code format

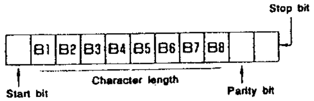
Bit length: 7BIT
Stop bit: STOP-1
Parity: EVEN


Stop bit
B1
B2
B3
B4
B5
B6
B7
Start bit
Character length
Parity bit

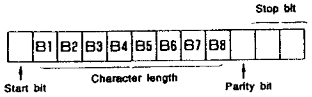
Bit length: 7BIT
Stop bit: STOP-2
Parity: ODD


Stop bit
B1
B2
B3
B4
B5
B6
B7
Start bit
Character length
Parity bit

Bit length: 8BIT
Stop bit: STOP-1
Parity: EVEN


Stop bit
B1
B2
B3
B4
B5
B6
B7
B8
Start bit
Character length
Parity bit

Bit length: 8BIT
Stop bit: STOP-2
Parity: ODD


Stop bit
B1
B2
B3
B4
B5
B6
B7
B8
Start bit
Character length
Parity bit

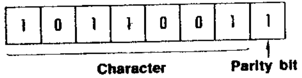
NOTES

[Note 1]
Character (data) length
This is the number of bits that configure the character data.

[Note 2]
Stop bit
Added to each character are the start bit which indicates the start of the data and the stop bit which indicates the end of the data. The start bit is fixed at 1 bit but the stop bit can be set to either 1 or 2 bits.

[Note 3]
Parity bit
The parity bit is added for checking transmission errors. When data is to be transmitted, the total number of ones for the character is made an even number or odd number of ones depending on the setting of this bit, and this is checked at the receiving end.

Total number of ones: odd number


1
0
1
1
0
0
1
1
Character
Parity bit

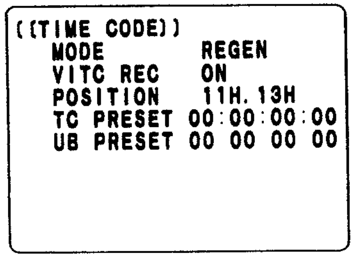
In the above case:
Parity error for an even number under parity check.
No parity error for an odd number under parity check.

[Note 4]
Baud rate (data transmission rate)
This is the volume of data which can be sent in one second. For instance, a rate of 2400 bps means that 2400 bits of data is sent in one second.

■ This screen appears only when the optional RS-232C connector has been installed.

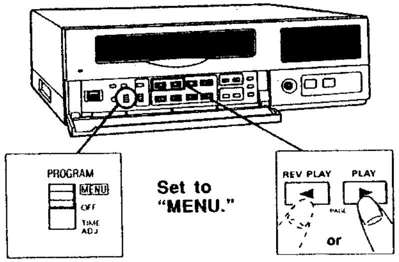
Menu Screen 8

(Time code setting)



```
((TIME CODE))
  MODE        REGEN
  VITC REC    ON
  POSITION    11H.13H
  TC PRESET 00:00:00:00
  UB PRESET 00 00 00 00
```

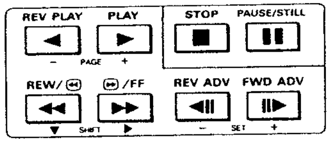
[Displaying the screens]



Set to "MENU."

Press one of these buttons until the desired menu screen appears.

[Menu setting buttons]



PAGE (–) button:	**Page down**
PAGE (+) button:	**Page up**
SHIFT (▼) button:	**Move to item below**
SHIFT (▶) button:	**Move to item on the right**
SET (–) button:	**Change item (decrement numerical value)**
SET (+) button:	**Change item (increment numerical value)**

Recording the time code is a handy way of finding absolute positions on the tape.

■ Selecting the time code.

1 MODE

Select the time code mode.

REGEN: The regeneration mode is established. The VTR's clock value serves as the time code value, and the data and alarm count are written into the user's bit.

P FREE-RUN: The count starts from a preset time code value. The count continues to advance regardless of whether the VTR is recording or stopped. [See Note 1]

P REC-RUN: The count starts from a preset time code value. The count advances only during recording. [See Note 2]

■ Setting the time code (VITC) recording ON/OFF

2 VITC REC

Set the time code (VITC) recording ON or OFF.
ON: The time code is recorded.
OFF: The time code is not recorded.

[See Note 3]

■ Setting the time code (VITC) insertion lines

3 POSITION

Set the lines at which the VITC code is to be inserted.
7H-22H. Select two insertion lines which are not side by side.

[See Note 4]

■ Setting the time code preset (default) value

4 TC PRESET

Set the time code default value.
00:00:00:00: Set the values for hours/minutes/seconds/frames.

- Any value from 00:00:00:00 to 23:59:59:24 can be set.

■ Setting the user's bit preset value

5 UB PRESET

Set the user's bit preset value.
00 00 00 00: Set an 8-digit alphanumeric string.

- Any of the following 16 alphanumerics can be used: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F.

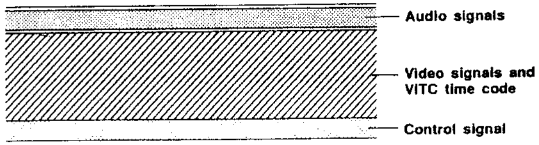
[See Note 5]

■ Time code

00 : 00 : 00 : 00

Hours : minutes : seconds : frames   1 second = Approx. 25 frames

Position where the time code is recorded on the tape



NOTES

[Note 1]
Free-running mode
In this mode, the time code is counted at all times. It is useful when recording durations in real time.

[Note 2]
Rec-running mode
In this mode, the time code is counted only while the VTR is in the recording mode. It is handy when ascertaining accurately an absolute position on the tape.

[Note 3]
VITC
This stands for vertical interval time code. It is a signal which is recorded on the vertical lines on the tape. It is recorded together with the video signals.

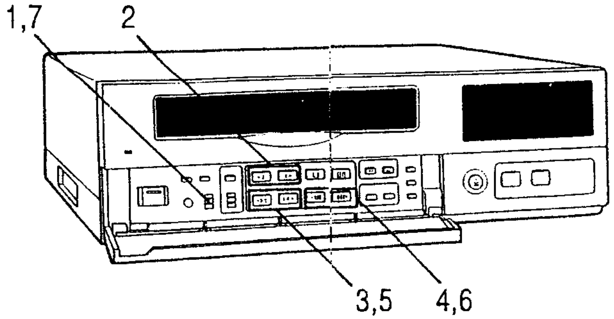
[Note 4]
Insertion line
This refers to the vertical line position where the VITC is recorded. Two lines are selected.

[Note 5]
User's bit
This is a code which the user sets as desired. It is useful for recording a control number or a tape's serial number, for instance, on the tape.

1-12. Series Recording

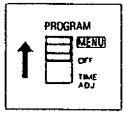
Series Recording

(Model AG-6730 only)



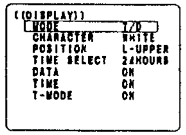
The steps for continuous recording using several time lapse VTRs are described in this section.

1



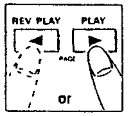
Set this switch to "MENU."

•▭ is no indication for AG-6040.

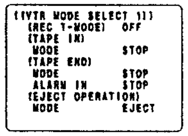


```
((DISPLAY))
  MODE             T/D
  CHARACTER        WHITE
  POSITION         L-UPPER
  TIME SELECT      24HOURS
  DATA             ON
  TIME             ON
  T-MODE           ON
```

2

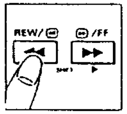


Press one of these buttons to display menu screen 2.

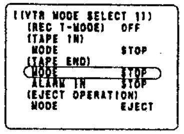


```
((VTR MODE SELECT 1))
  (REC T-MODE)   OFF
  (TAPE IN)
   MODE          STOP
  (TAPE END)
   MODE          STOP
   ALARM IN      STOP
  (EJECT OPERATION)
   MODE          EJECT
```

3

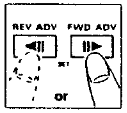


Press this button to select "TAPE END MODE."

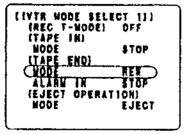


```
((VTR MODE SELECT 1))
  (REC T-MODE)   OFF
  (TAPE IN)
   MODE          STOP
  (TAPE END)
   MODE          STOP
   ALARM IN      STOP
  (EJECT OPERATION)
   MODE          EJECT
```

4

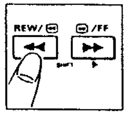


Press one of these buttons to set to "REW."

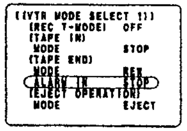


```
((VTR MODE SELECT 1))
  (REC T-MODE)   OFF
  (TAPE IN)
   MODE          STOP
  (TAPE END)
   MODE          REW
   ALARM IN      STOP
  (EJECT OPERATION)
   MODE          EJECT
```

5

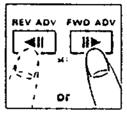


Press this button to select "TAPE END ALARM IN."

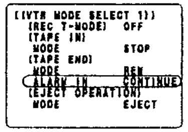


```
((VTR MODE SELECT 1))
  (REC T-MODE)   OFF
  (TAPE IN)
   MODE          STOP
  (TAPE END)
   MODE          REW
   ALARM IN      STOP
  (EJECT OPERATION)
   MODE          EJECT
```

6

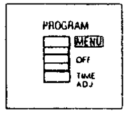


Press one of these buttons to set to "CONTINUE."

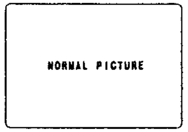


```
((VTR MODE SELECT 1))
  (REC T-MODE)   OFF
  (TAPE IN)
   MODE          STOP
  (TAPE END)
   MODE          REW
   ALARM IN      CONTINUE
  (EJECT OPERATION)
   MODE          EJECT
```

7



Set this switch to "OFF."



```
NORMAL PICTURE
```

■ Series recording with 2 or more time lapse VTRs

The second VTR starts recording as soon as the tape-end in the first VTR is detected.

■ Alternate recording with 2 VTRs

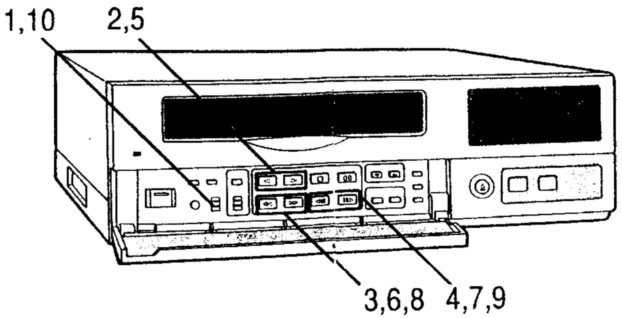
The second VTR starts recording as soon as the tape-end in the first VTR is detected.

The first VTR starts recording again as soon as the tape-end in the second VTR is detected.

NOTES

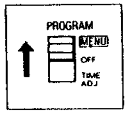
- After having completed the settings, proceed with the regular recording operation using the first VTR.
- Set the power switches of the second and subsequent VTRs to the "ON" position.
- In order to prevent errors occurring in operation, it is recommended that the REC LOCK switch is set to "1" or "2."

1-Shot Recording



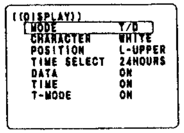
The steps for 1-shot recording used for data files and animation, for instance, are described in this section.

1



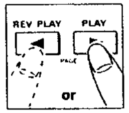
Set this switch to "MENU."

•☐ is no indication for AG-6040.

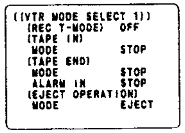


```
((DISPLAY))
 MODE           T/D
 CHARACTER      WHITE
 POSITION       L-UPPER
 TIME SELECT    24HOURS
 DATA           ON
 TIME           ON
 T-MODE         ON
```

2

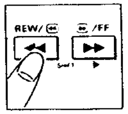


Press one of these buttons to display menu screen 2.

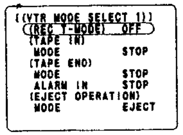


```
((VTR MODE SELECT 1))
 (REC T-MODE)   OFF
 (TAPE IN)
  MODE          STOP
 (TAPE END)
  MODE          STOP
  ALARM IN      STOP
 (EJECT OPERATION)
  MODE          EJECT
```

3

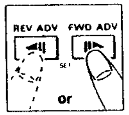


Press this button to select "REC T-MODE."



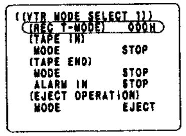
```
((VTR MODE SELECT 1))
 (REC T-MODE)   OFF
 (TAPE IN)
  MODE          STOP
 (TAPE END)
  MODE          STOP
  ALARM IN      STOP
 (EJECT OPERATION)
  MODE          EJECT
```

4



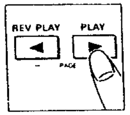
Press one of these buttons to display "000H."

[See Note 1]



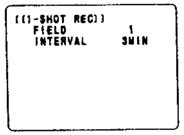
```
((VTR MODE SELECT 1))
 (REC T-MODE)   000H
 (TAPE IN)
  MODE          STOP
 (TAPE END)
  MODE          STOP
  ALARM IN      STOP
 (EJECT OPERATION)
  MODE          EJECT
```

5



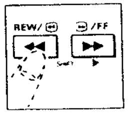
Press this button to display menu screen 5.

(This step applies to model AG-6730 only.)



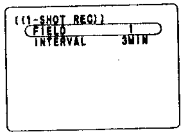
```
((1-SHOT REC))
  FIELD         1
  INTERVAL      3MIN
```

6



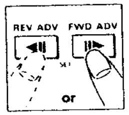
Press one of these buttons to select "FIELD."

(This step applies to model AG-6730 only.)



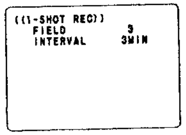
```
((1-SHOT REC))
  FIELD         1
  INTERVAL      3MIN
```

7



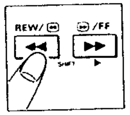
Press one of these buttons to set the 1-shot recording time.

[See Note 2]
(This step applies to model AG-6730 only.)



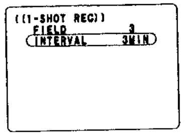
```
((1-SHOT REC))
  FIELD         3
  INTERVAL      3MIN
```

8



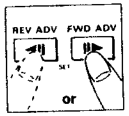
Press this button to select "INTERVAL."

(This step applies to model AG-6730 only.)



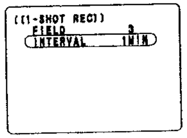
```
((1-SHOT REC))
  FIELD         3
  INTERVAL      3MIN
```

9



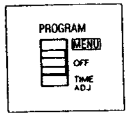
Press one of these buttons to set the interval time.

[See Note 3]
(This step applies to model AG-6730 only.)

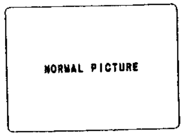


```
((1-SHOT REC))
  FIELD         3
  INTERVAL      1MIN
```

10



Set this switch to "OFF."



```
NORMAL PICTURE
```

↓ (Continued overleaf)

NOTES

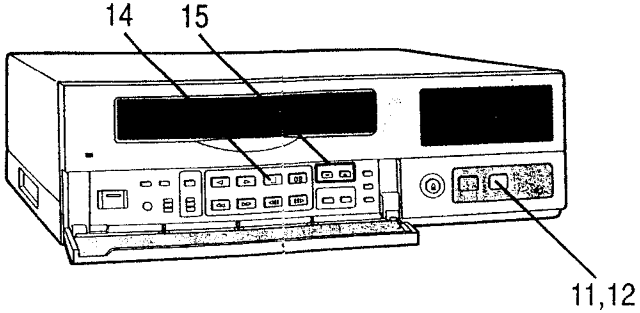
[Note 1]
When "REC T-MODE" on menu screen 2 is "OFF," the time mode can be set to "000H" also by pressing the TIME MODE button on the front sub panel.

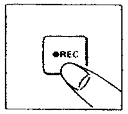
[Note 2]
Each time the SET button is pressed, the time for recording one frame is successively changed as follows: 1 → 2 → 3 → 4 → 5 → 10 → 15 → 20 → 25 → 30 → 40 → 50 → 1 → 2 ... (Unit: field)
(This time is fixed at 1 field for model AG-6040.)

[Note 3]
Each time the SET button is pressed, the interval time is successively changed as follows: 1 → 2 → 3 → 1 ... (Unit: minute)
(This time is fixed at 3 minutes for model AG-6040.)

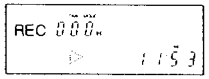
1-Shot Recording

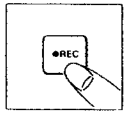
(Continued)



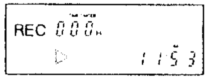
11 

When this button is pressed, few shots are recorded and the VTR is set to the recording standby mode.

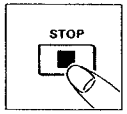


12 

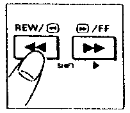
When the button is pressed again, 1 shot is recorded and the VTR is set to the recording standby mode.



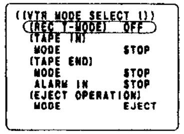
13
- **One frame (shot) is recorded each time this button is subsequently pressed.**
- **If the REC button is not pressed, one frame (shot) is recorded automatically when the interval time elapses.**

14 

Press this button to stop 1-shot recording.

15 

To release this mode, set to any position except "000H."



```
((VTR MODE SELECT 1))
 (REC T-MODE)   OFF
 (TAPE IN)
  MODE          STOP
 (TAPE END)
  MODE          STOP
  ALARM IN      STOP
 (EJECT OPERATION)
  MODE          EJECT
```

■ 1-shot recording using a remote switch
Besides activating 1-shot recording by pressing the REC button on the VTR's front panel, it is also possible to connect a remote switch and activate 1-shot recording from a distance by remote control.

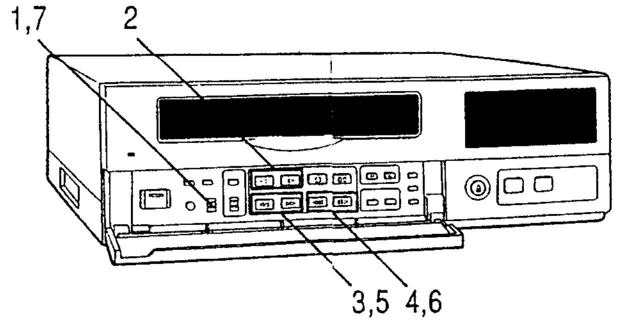
- Ask your dealer to give you details about a remote switch.
- The ON time for the remote switch must be at least 100ms.
- An interval of at least 1 second is required to turn on the remote switch. Refer to page 74 for the signal levels.

NOTES

[Other notes]
Refer to page 1-22 for the lengths of time during which recording can be performed in the 1-shot recording mode.

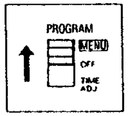
Automatic Time Setting

(Model AG-6730 only)



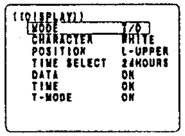
Using an external switch, for instance, it is also possible to set this unit's time to any time setting.
With this unit serving as the master clock, it is possible set the time of other time lapse recorders (only Panasonic time lapse recorders equipped with a time adjust input connector).

1



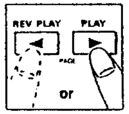
Set this switch to "MENU."

- ▭ is no indication for AG-6040.



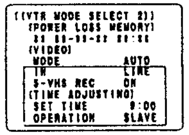
```
((DISPLAY))
 MODE          1/0
 CHARACTER     WHITE
 POSITION      L-UPPER
 TIME SELECT   24HOURS
 DATA          ON
 TIME          ON
 T-MODE        ON
```

2



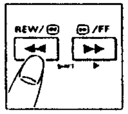
Press one of these buttons to display menu screen 3.

- ▭ is no indication for AG-6040.



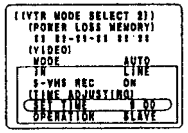
```
((VTR MODE SELECT 2))
 (POWER LOSS MEMORY)
  ** **-**-** **:**
 (VIDEO)
  MODE          AUTO
  IN            LINE
  S-VHS REC     ON
 (TIME ADJUSTING)
  SET TIME       9:00
  OPERATION     SLAVE
```

3



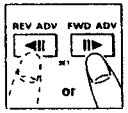
Press this button to select "TIME ADJUST SET TIME."

- ▭ is no indication for AG-6040.

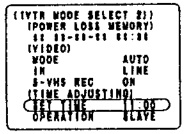


```
((VTR MODE SELECT 2))
 (POWER LOSS MEMORY)
  ** **-**-** **:**
 (VIDEO)
  MODE          AUTO
  IN            LINE
  S-VHS REC     ON
 (TIME ADJUSTING)
  SET TIME       9:00
  OPERATION     SLAVE
```

4

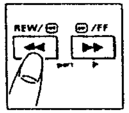


Press one of these buttons to set the time.

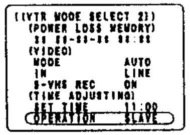


```
((VTR MODE SELECT 2))
 (POWER LOSS MEMORY)
  ** **-**-** **:**
 (VIDEO)
  MODE          AUTO
  IN            LINE
  S-VHS REC     ON
 (TIME ADJUSTING)
  SET TIME      11:00
  OPERATION     SLAVE
```

5

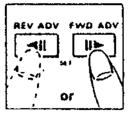


Press this button to select "TIME ADJUST OPERATION."



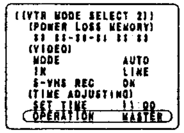
```
((VTR MODE SELECT 2))
 (POWER LOSS MEMORY)
  ** **-**-** **:**
 (VIDEO)
  MODE          AUTO
  IN            LINE
  S-VHS REC     ON
 (TIME ADJUSTING)
  SET TIME      11:00
  OPERATION     SLAVE
```

6



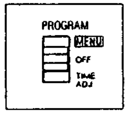
Press one of these buttons to select the time setting mode.

[See Note 1]

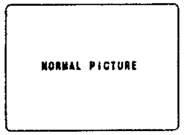


```
((VTR MODE SELECT 2))
 (POWER LOSS MEMORY)
  ** **-**-** **:**
 (VIDEO)
  MODE          AUTO
  IN            LINE
  S-VHS REC     ON
 (TIME ADJUSTING)
  SET TIME      11:00
  OPERATION     MASTER
```

7



Set this switch to "OFF."



```
NORMAL PICTURE
```

NOTES

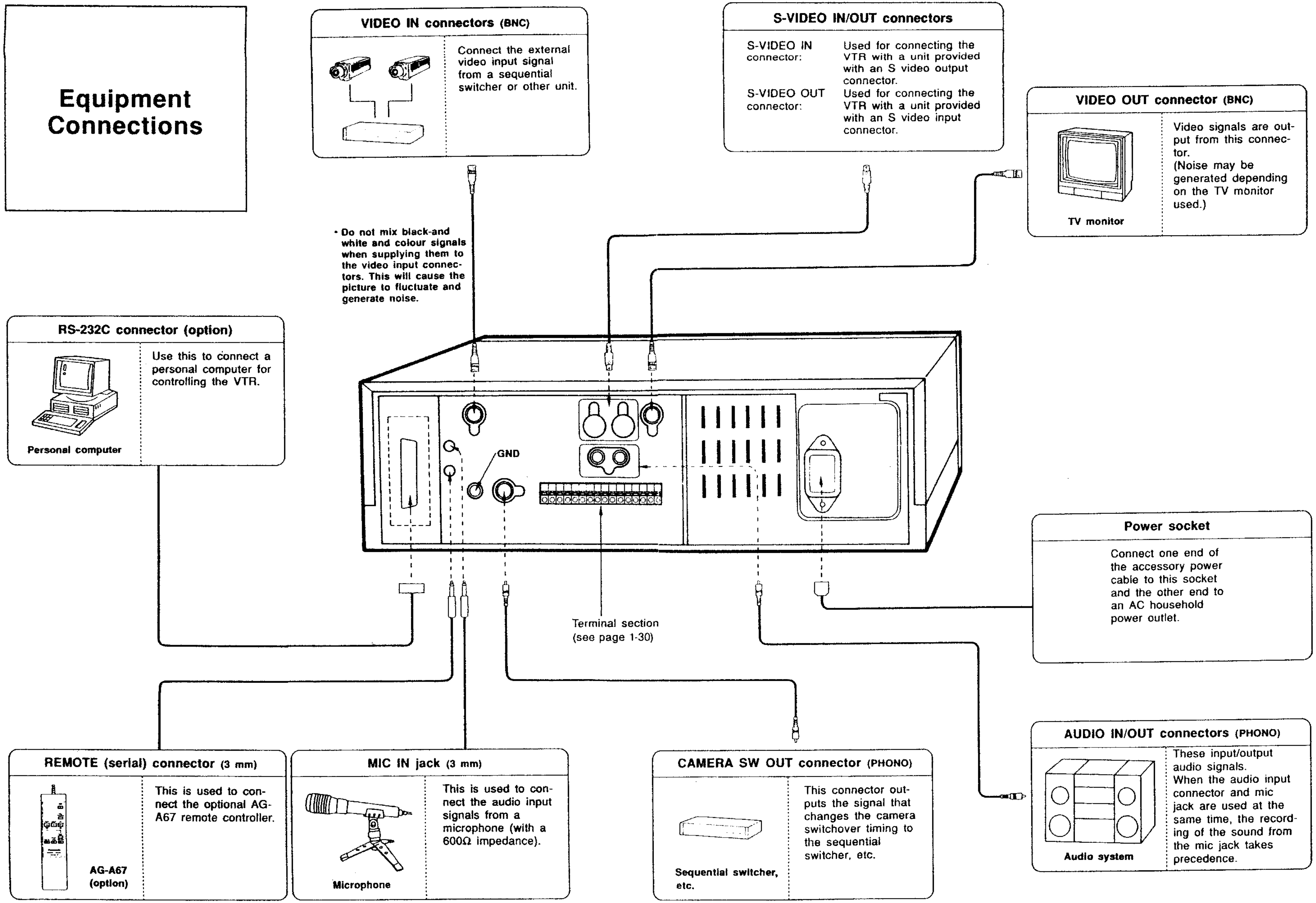
[Note 1]

■ When SLAVE is selected:
When the rear panel's time adjust input terminal is shorted to ground, this VTR is set to the time which was set in step 4 and, at the same time, the pulses are output to the other VTRs.

■ When MASTER is selected:
Pulses are output to the other VTRs when this VTR is set to the time which was set in step 4.

1-15. Equipment Connections

Equipment Connections



VIDEO IN connectors (BNC)

Connect the external video input signal from a sequential switcher or other unit.

- Do not mix black-and white and colour signals when supplying them to the video input connectors. This will cause the picture to fluctuate and generate noise.

AG-6730 only

S-VIDEO IN/OUT connectors

S-VIDEO IN connector:	Used for connecting the VTR with a unit provided with an S video output connector.
S-VIDEO OUT connector:	Used for connecting the VTR with a unit provided with an S video input connector.

VIDEO OUT connector (BNC)

Video signals are output from this connector.
(Noise may be generated depending on the TV monitor used.)

RS-232C connector (option)

Use this to connect a personal computer for controlling the VTR.

Power socket

Connect one end of the accessory power cable to this socket and the other end to an AC household power outlet.

REMOTE (serial) connector (3 mm)

This is used to connect the optional AG-A67 remote controller.

MIC IN jack (3 mm)

This is used to connect the audio input signals from a microphone (with a 600Ω impedance).

CAMERA SW OUT connector (PHONO)

This connector outputs the signal that changes the camera switchover timing to the sequential switcher, etc.

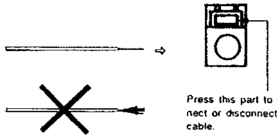
AUDIO IN/OUT connectors (PHONO)

These input/output audio signals.
When the audio input connector and mic jack are used at the same time, the recording of the sound from the mic jack takes precedence.

Terminal Connections

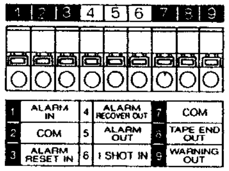
Notice for cables connected to terminals

Twist the end of the cables or solder it.


Press this part to connect or disconnect a cable.

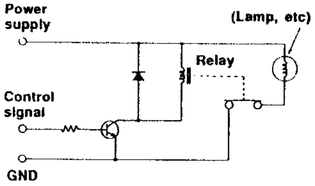
- ■ Short-circuiting may result if the end of a cable has not been twisted securely.

Terminal section of model AG-6040


1
2
3
4
5
6
7
8
9
ALARM IN
COM
ALARM RESET IN
ALARM RECOVER OUT
ALARM OUT
1 SHOT IN
COM
TAPE END OUT
WARNING OUT

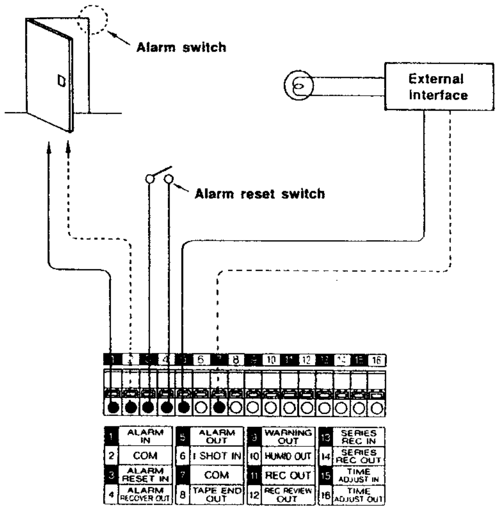
External interfacing specifications

Example of lamp lighting with high signal.


Power supply
(Lamp, etc)
Relay
Control signal
GND

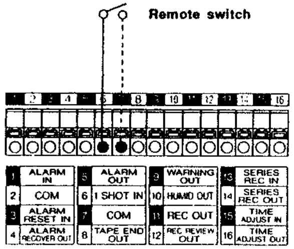
- ■ Use devices with ratings which match the actual conditions of use.

Connections for alarm recording


Alarm switch
External interface
Alarm reset switch
ALARM IN
COM
ALARM RESET IN
ALARM RECOVER OUT
ALARM OUT
1 SHOT IN
COM
TAPE END OUT
WARNING OUT
HUMID OUT
REC OUT
REC REVIEW OUT
SERIES REC IN
SERIES REC OUT
TIME ADJUST IN
TIME ADJUST OUT

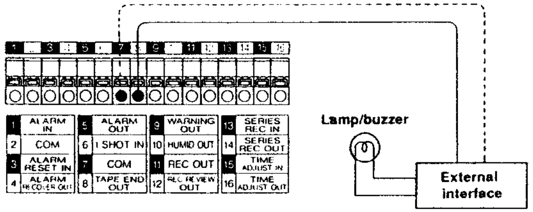
- ■ Alarm recording is commenced when the alarm switch is set ON.
- ■ Alarm recording is released when the alarm reset switch is set ON.
- ■ When alarm recording is started, the alarm lamp and buzzer are activated. Use a +12 V alarm lamp and buzzer.

Connections for 1-shot recording


Remote switch
ALARM IN
COM
ALARM RESET IN
ALARM RECOVER OUT
ALARM OUT
1 SHOT IN
COM
TAPE END OUT
WARNING OUT
HUMID OUT
REC OUT
REC REVIEW OUT
SERIES REC IN
SERIES REC OUT
TIME ADJUST IN
TIME ADJUST OUT

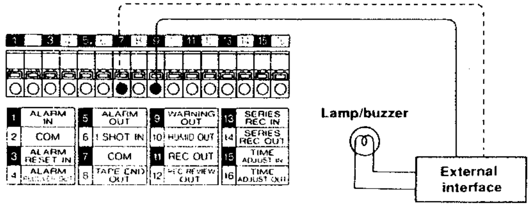
- ■ When the remote switch is set ON, one shot (frame) is recorded.
- ■ The ON time for the remote switch must be at least 200ms.
- ■ An interval of at least 1 second is required to turn on the remote switch.

Connections for tape-end output


Lamp/buzzer
External interface
ALARM IN
COM
ALARM RESET IN
ALARM RECOVER OUT
ALARM OUT
1 SHOT IN
COM
TAPE END OUT
WARNING OUT
HUMID OUT
REC OUT
REC REVIEW OUT
SERIES REC IN
SERIES REC OUT
TIME ADJUST IN
TIME ADJUST OUT

- ■ When the cassette tape reaches its end during recording, the alarm unit connected externally is activated.

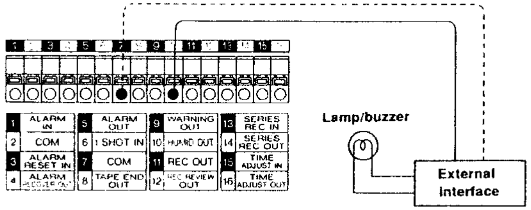
Connections for auto OFF output


Lamp/buzzer
External interface
ALARM IN
COM
ALARM RESET IN
ALARM RECOVER OUT
ALARM OUT
1 SHOT IN
COM
TAPE END OUT
WARNING OUT
HUMID OUT
REC OUT
REC REVIEW OUT
SERIES REC IN
SERIES REC OUT
TIME ADJUST IN
TIME ADJUST OUT

- ■ When a malfunction has occurred in this VTR, the alarm unit connected externally is activated.

In such a case, an error code will appear on the display (see page 1-34).

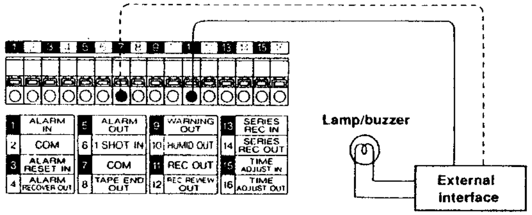
Connections for dew output (model AG-6730 only)


Lamp/buzzer
External interface
ALARM IN
COM
ALARM RESET IN
ALARM RECOVER OUT
ALARM OUT
1 SHOT IN
COM
TAPE END OUT
WARNING OUT
HUMID OUT
REC OUT
REC REVIEW OUT
SERIES REC IN
SERIES REC OUT
TIME ADJUST IN
TIME ADJUST OUT

- ■ When dew (condensation) has formed inside this VTR, the alarm unit connected externally is activated.

In such a case, "ď" will appear on the display (see page 1-34).

Connections for recording output (model AG-6730 only)


Lamp/buzzer
External interface
ALARM IN
COM
ALARM RESET IN
ALARM RECOVER OUT
ALARM OUT
1 SHOT IN
COM
TAPE END OUT
WARNING OUT
HUMID OUT
REC OUT
REC REVIEW OUT
SERIES REC IN
SERIES REC OUT
TIME ADJUST IN
TIME ADJUST OUT

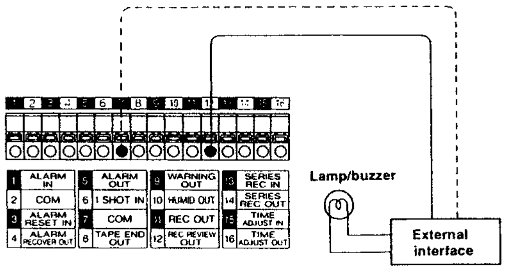
- ■ When the VTR is set to the recording mode, the alarm unit connected externally is activated.

Terminal Connections

(Continued)

Connections for recording review

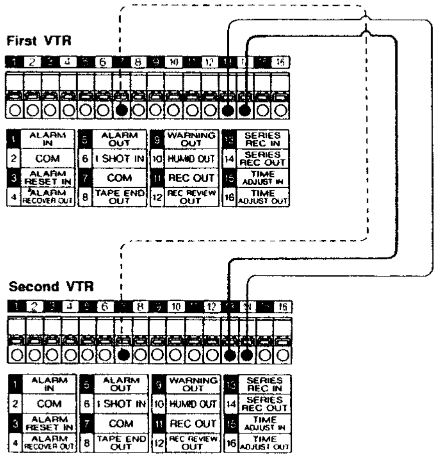
(model AG-6730 only)


2
4
6
8
10
12
14
16
1 ALARM IN
2 COM
3 ALARM RESET IN
4 ALARM RECOVER OUT
5 ALARM OUT
6 1 SHOT IN
7 COM
8 TAPE END OUT
9 WARNING OUT
10 HUMID OUT
11 REC OUT
12 REC REVIEW OUT
13 SERIES REC IN
14 SERIES REC OUT
15 TIME ADJUST IN
16 TIME ADJUST OUT
Lamp/buzzer
External interface

- ■ The external unit is actuated if it was not possible for the proper video level to be obtained after the recording check operation due to dirt on the heads or deterioration of the tape. At the same time, the cassette mark (▭) on the display tube will flash. (See page 1-34)

Connections for series recording

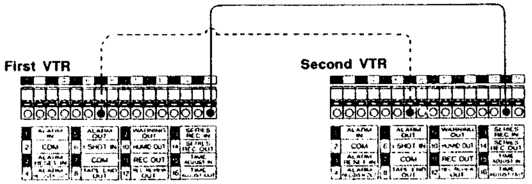
(model AG-6730 only)


First VTR
Second VTR
1 ALARM IN
2 COM
3 ALARM RESET IN
4 ALARM RECOVER OUT
5 ALARM OUT
6 1 SHOT IN
7 COM
8 TAPE END OUT
9 WARNING OUT
10 HUMID OUT
11 REC OUT
12 REC REVIEW OUT
13 SERIES REC IN
14 SERIES REC OUT
15 TIME ADJUST IN
16 TIME ADJUST OUT

- ■ The second VTR starts recording as soon as the tape in the first VTR reaches its end.
- ■ The first VTR starts recording again as soon as the tape in the second VTR reaches its end.
- ■ When a third VTR is connected, the series output of the second unit is connected to the series input of the third unit.

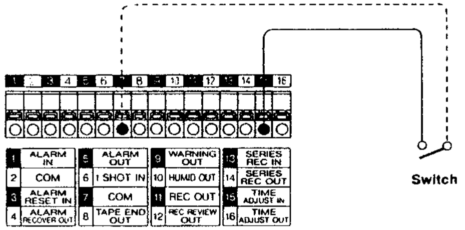
Connections for time setting (model AG-6730 only)

- ■ Setting the time of another VTR using this VTR


First VTR
Second VTR

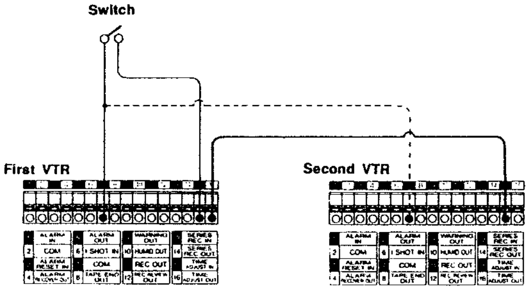
- Set "TIME ADJUST OPERATION" on menu screen 3 of this VTR to "MASTER."
- When this VTR is set to the time which was set by "TIME ADJUST SET TIME" on menu screen 3, pulses are output and all the other VTRs are set to the time.

- ■ Setting this VTR's time using the external switch


1 ALARM IN
2 COM
3 ALARM RESET IN
4 ALARM RECOVER OUT
5 ALARM OUT
6 1 SHOT IN
7 COM
8 TAPE END OUT
9 WARNING OUT
10 HUMID OUT
11 REC OUT
12 REC REVIEW OUT
13 SERIES REC IN
14 SERIES REC OUT
15 TIME ADJUST IN
16 TIME ADJUST OUT
Switch

- Set "TIME ADJUST OPERATION" on menu screen 3 of this VTR to "SLAVE."
- When the TIME ADJUST IN terminal is connected to ground (COM) and short-circuited using an external switch, the time is set to what was set by "TIME ADJUST SET TIME" on menu screen 3.

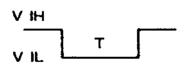
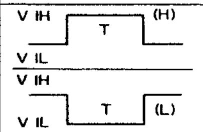
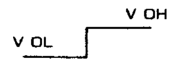
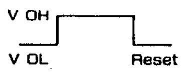
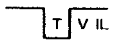
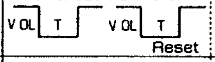
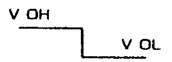
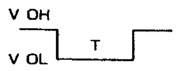
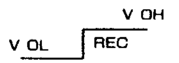
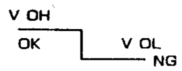
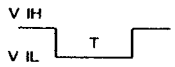
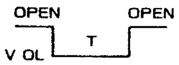
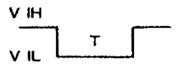
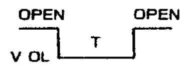
- ■ Setting the time of several VTRs using the external switch


Switch
First VTR
Second VTR

- Set "TIME ADJUST OPERATION" on menu screen 3 of this VTR to "SLAVE."
- When the TIME ADJUST IN terminal is connected to ground (COM) and short-circuited using an external switch, the time is set to what was set by "TIME ADJUST SET TIME" on menu screen 3, and the other VTRs are also set to the time.

- ■ Other time lapse recorders which can be connected to this unit are limited to Panasonic models equipped with time setting terminals.

Terminal Signal Levels

Name of terminal	Signal level		Remarks
Alarm input		V IL=0~0.6V T≧100mS	Ground input
Alarm reset input	 V IH (H) T V IL V IH T (L) V IL	V IH=4~5V V IL=0~0.6V T≧100mS	High/low input (H) or (L) can be selected on menu screen 4.
Alarm reset output		V OH=5±0.5V(200Ω) V OL=0~0.6V(Max.3mA)	High output
Alarm output	 V OH V OL Reset	V OH=11~13V(4700Ω) V OL=0~0.6V(Max.3mA)	High output
1-shot recording input		V IL=0~0.6V T≧100mS	Ground input
Tape-end output	 Auto repeat VOH Tape-end STOP V OL T V OL T Reset	V OH=11~13V(4700Ω) V OL=0~0.6V(Max.3mA) T=approx.2s	Ground output
Auto OFF output		V OH=11~13V(4700Ω) V OL=0~0.6V(Max.3mA)	Ground output
Dew output (model AG-6730 only)		V OH=4~5.5V(10KΩ) V OL=0~0.6V(Max.3mA)	Ground output
Recording output (model AG-6730 only)		V OH=11~13V(4700Ω) V OL=0~0.6V(Max.3mA)	High output
Recording check output (model AG-6730 only)	 V OH OK V OL NG	V OH=11~13V(4700Ω) V OL=0~0.6V(Max.3mA) OK when reset	Ground output
Series recording input (model AG-6730 only)		V IL=0~0.6V T≧100mS	Ground input
Series recording output (model AG-6730 only)	 OPEN OPEN V OL T	V OL=0~0.6V T≧approx.700mS	Ground output
Time set input (model AG-6730 only)		V IL=0~0.6V T≧100mS	Ground input
Time set output (model AG-6730 only)	 OPEN OPEN V OL T	V OL=0~0.6V T=approx.1s	Ground output

Other Functions

Power restoration recording

When there was a power failure during recording, the VTR is automatically set to the recording mode provided that the power is restored within one month.

- Immediately after the power has failed, the VTR is set to the tape protection mode so as to protect the video heads and tape.
- The VTR status established after the power is restored depends on the status established prior to the power failure and on the recording mode, as follows.

Status / Mode	Recording	Playback, stop, fast forward, rewind	Auto rewinding during auto repeat recording
Alarm	Recording	Stop	Recording after tape is rewound to its start
Internal timer	Resume the recording as per the settings of the internal timer.		
External timer	Recording	Recording	Recording after tape is rewound to its start

- In the event of power failure lasting more than one month, recording will be forcibly started by the recorder in the 72H mode once the power has been restored if a tape has been loaded.

Automatic recording review function

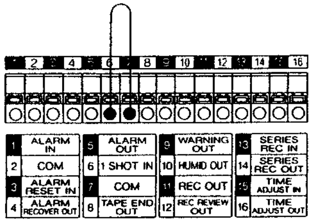
This function conducts the recording review automatically when recording has been commenced from the stop mode.

First, recording is conducted for several seconds, and then what has been recorded is automatically reviewed. If, after a review of the recording, the proper video level was not achieved due to dirt on the heads or tape deterioration, the cassette mark (📼) flashes on the display tube and, at the same time, the automatic head cleaning operation is repeated 3 times. After this, recording is again conducted for several seconds, and then what has been recorded is automatically reviewed. If the result of the review is acceptable, the cassette mark stops flashing and the recording is commenced.

If the result of the review is not acceptable, the recording is commenced with the cassette mark still flashing. (See page 1-34)

Function setting method

Connect the 1-shot recording terminal to ground and short-circuit.

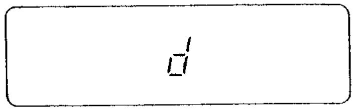

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
1 ALARM IN
2 COM
3 ALARM RESET IN
4 ALARM RECOVER OUT
5 ALARM OUT
6 1 SHOT IN
7 COM
8 TAPE END OUT
9 WARNING OUT
10 HUMID OUT
11 REC OUT
12 REC REVIEW OUT
13 SERIES REC IN
14 SERIES REC OUT
15 TIME ADJUST IN
16 TIME ADJUST OUT

- When the automatic recording review function is set, do not use the unit's 1-shot recording facility.

Dew ("d") Display

■ When dew forms inside the VTR, the "d" mark appears on the display.

Wait a few hours until the "d" mark is cleared before proceeding any further with operation.



"d" refers to the first letter of the word "dew."

Dew (or condensation) refers to the phenomenon whereby droplets of water form, for instance, on the window pane of a warm room in winter.

■ When dew has formed:

- "d" appears on the display.
- The VTR cannot be operated until "d" is cleared from the display. Wait until it is cleared.
- When dew forms with the power OFF, the power is automatically switched on and the "d" mark appears.
- If a cassette has been installed, it is ejected half-way.
- If a cassette has not been installed, one cannot be installed until "d" is cleared from the display.

■ When the dew status is released:

- The VTR is restored to the state where regular operation is possible.
- If a cassette was installed, it is set to the stop mode.
- If dew formed during recording, the VTR is reset to the recording mode after the dew status is released.

■ Take care even while dew is forming!

Dew normally forms gradually, and the "d" mark may not flash for the first 10 to 15 minutes of dew formation. If the room temperature or humidity has changed, wait 20 minutes or so before using the VTR.

■ Conditions conductive to dew-forming

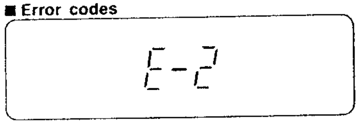
- When the VTR or cassette is moved from one location to another where the temperature or humidity is significantly different from the original location
- Where the humidity is high
- When the VTR or cassette is moved rapidly from a cool place to where the temperature or humidity is high
- A room immediately after it has been heated up

Error Display

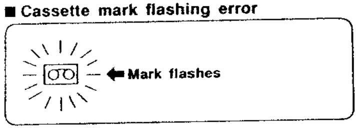
■ An error display appears on the display tube when a failure or malfunction has occurred in the unit. The error display indicated on the display denotes the nature of the failure or malfunction.

Take the remedial action described below.

■ Error codes



■ Cassette mark flashing error



When a malfunction occurs in the VTR, an error code appears on its display.

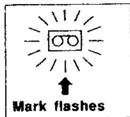
■ When an error code appears:

- An error code appears on the display.
- All operations are shut down when an error code appears on the display.
- **If the error is not released even after taking the remedial action described below, switch off the power, disconnect the power cable from the power outlet, and contact your dealer immediately.**

■ List of error codes

Error code	Malfunction	Remedial action
E-2	Malfunction in elevator section	These errors may occur if the video cassette has not been loaded properly. Try switching the power off and turning it back on again.
E-3	Malfunction in loading section	
E-4	Malfunction in cylinder section	These errors may occur if there is something wrong with the state of the video cassette. Try switching the power off and turning it back on again and replacing the video cassette.
E-5	Malfunction in reel section	
E-6	Incorrect tape tension	
E-7	Malfunction in reel solenoid	Try switching the power off and turning it back on again.
E-8	Malfunction in audio recording circuitry	Try switching the power off and turning it back on again.

■ Cassette mark flashing error



The cassette mark (▭) on the display tube flashes if it was not possible for the proper video level to be obtained after the recording review operation due to dirt on the heads or deterioration of the tape. VTR operation can still be continued but be sure to clean the heads or replace the cassette tape.

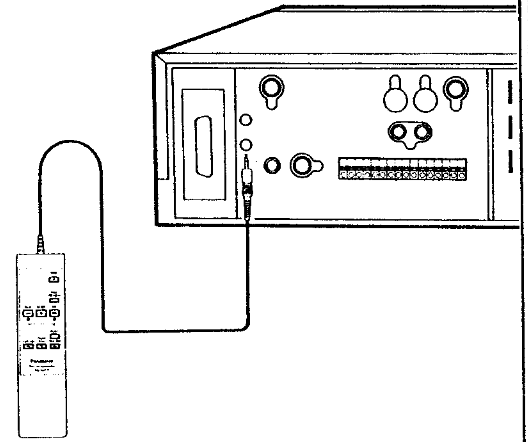
Optional Accessories

A variety of optional accessories are available to enable you to make the maximum use of this VTR's functions.

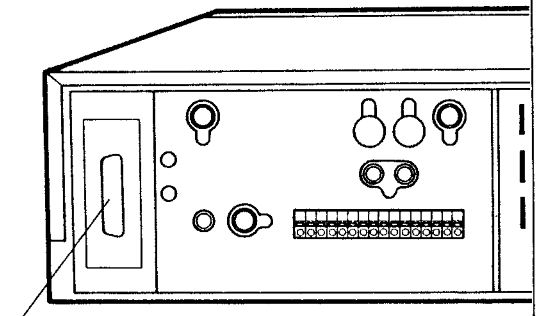
AG-A67 Remote Controller

This VTR can be operated by remote control instead of using its function buttons if the optional AG-A67 remote controller is connected to the remote connector on the VTR's rear panel.

- The functions which can be controlled using the AG-A67 remote controller are listed below:
  REC, REC REVIEW, REW, FF, PLAY, PAUSE/STILL, REV ADV, FWD ADV
- Do not connect headphones, etc. to the REMOTE control input connector.



AG-IA670 RS-232C Interface Adaptor



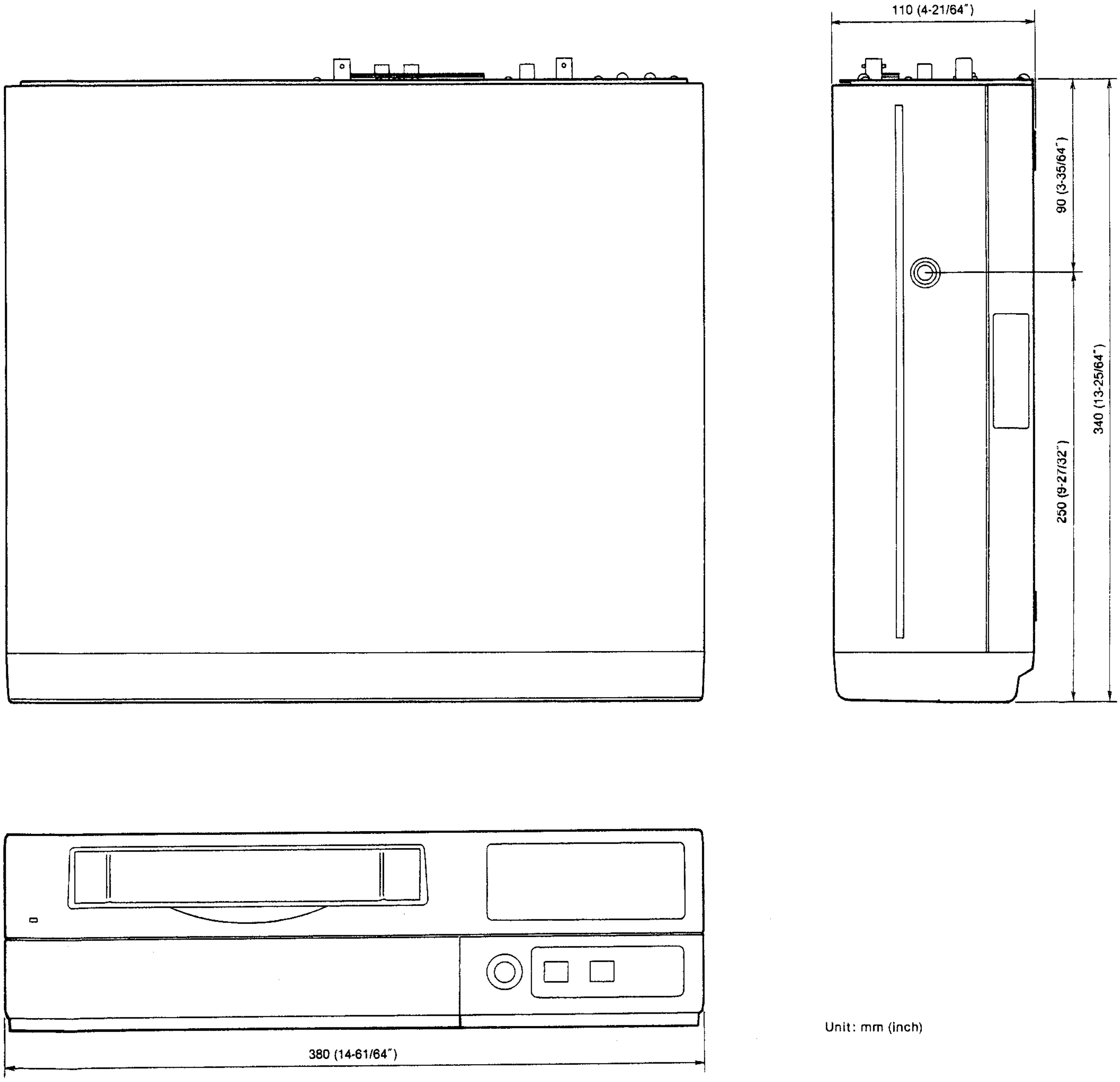
AG-IA670 RS-232C Interface adaptor

The functions listed below can be added by mounting the RS-232C interface board adaptor.

RS-232C communication functions
The VTR can be controlled using a personal computer. Menu screen 7 (RS-232C parameter settings) is added.

VITC time code recording/playback function
Time code signals can be recorded onto the tape. These come in handy for searches by locating absolute positions on the tape.
Menu screen 8 (time code settings) is added.

1-19. Dimensions


110 (4-21/64")
90 (3-35/64")
250 (9-27/32")
340 (13-25/64")
380 (14-61/64")

Unit: mm (inch)

Section 2

DISASSEMBLY PROCEDURES

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2-1. DISASSEMBLY FLOWCHART

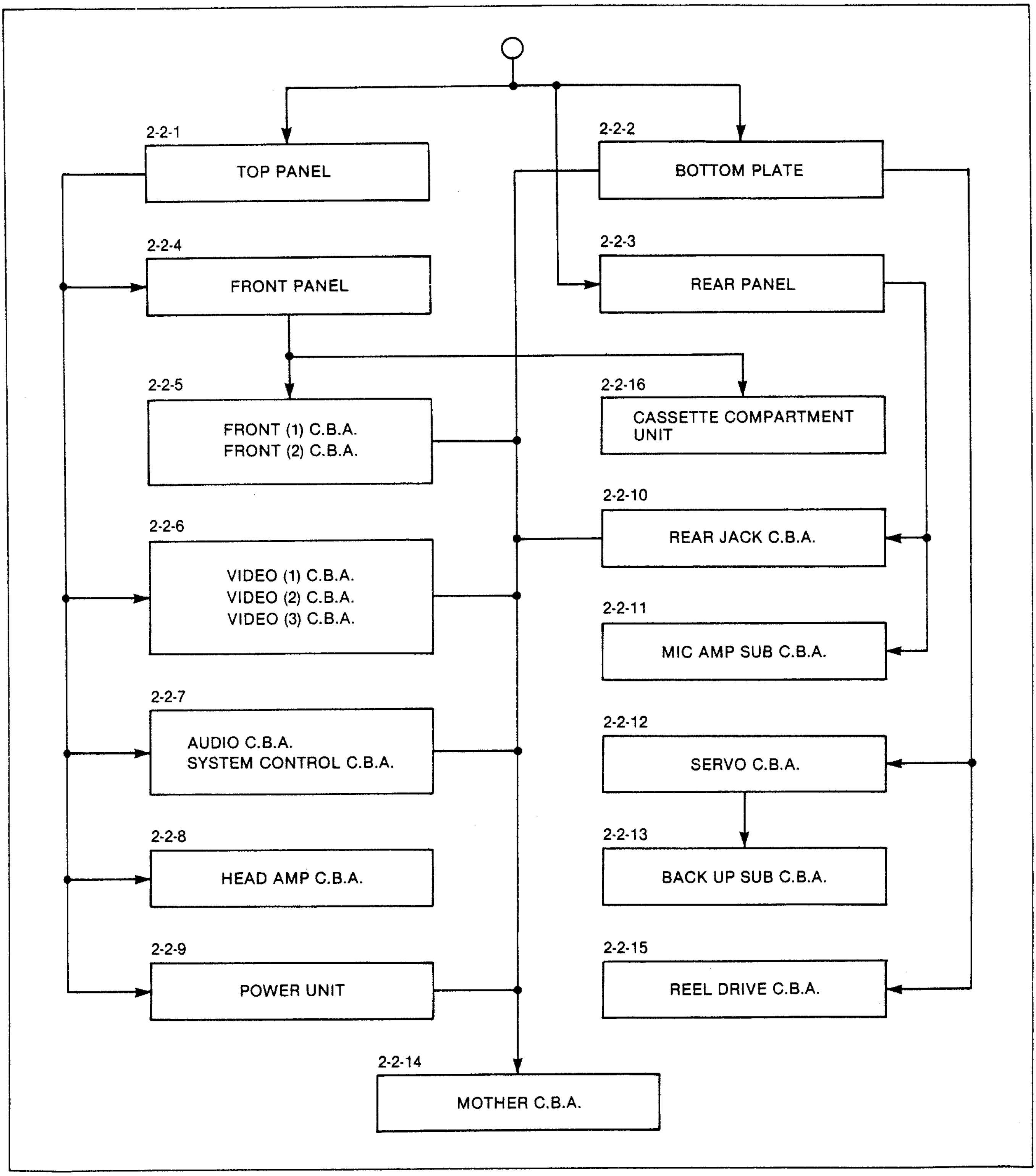

2-2-1
TOP PANEL
2-2-2
BOTTOM PLATE
2-2-4
FRONT PANEL
2-2-3
REAR PANEL
2-2-5
FRONT (1) C.B.A.
FRONT (2) C.B.A.
2-2-16
CASSETTE COMPARTMENT UNIT
2-2-10
REAR JACK C.B.A.
2-2-6
VIDEO (1) C.B.A.
VIDEO (2) C.B.A.
VIDEO (3) C.B.A.
2-2-11
MIC AMP SUB C.B.A.
2-2-7
AUDIO C.B.A.
SYSTEM CONTROL C.B.A.
2-2-12
SERVO C.B.A.
2-2-8
HEAD AMP C.B.A.
2-2-13
BACK UP SUB C.B.A.
2-2-9
POWER UNIT
2-2-15
REEL DRIVE C.B.A.
2-2-14
MOTHER C.B.A.

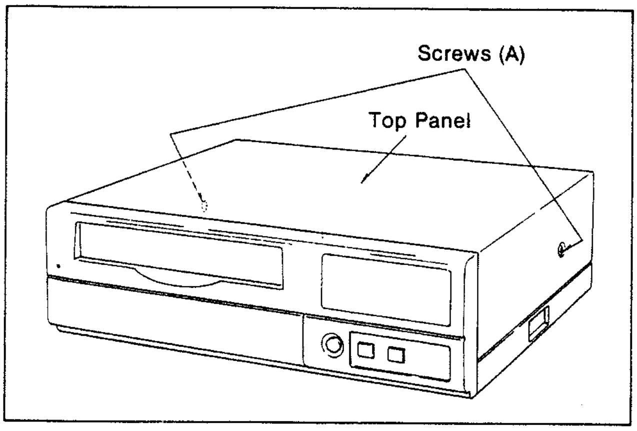
Figure D1

The above flow chart describes the order of steps for removing the cabinet parts and certain printed circuit boards in order to gain access to the items needing servicing. To reassemble the unit, follow the steps in reverse order.

2-2. DETAILED DISASSEMBLY METHOD

2-2-1. Removal of the Top Panel

1. Unscrew the 2 screws (A) on both side of the Top Panel (Figure D2).
2. Careful lift the rear of the case and side it off the back of the unit.

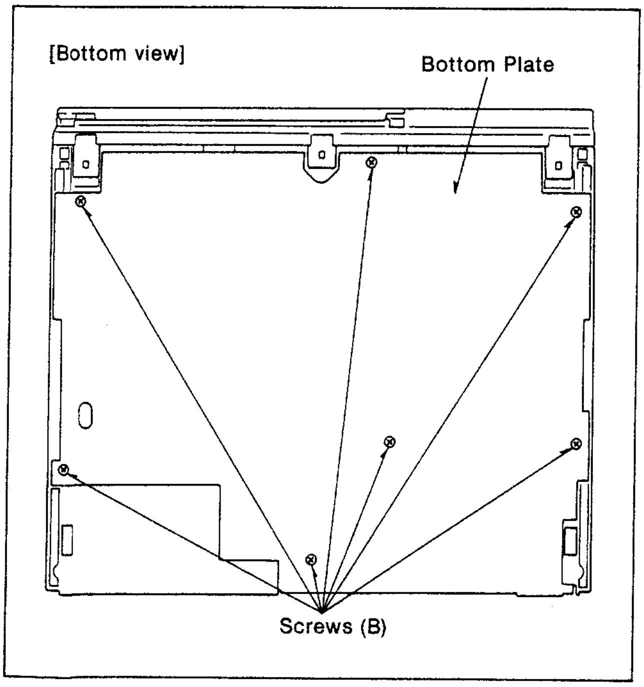


Screws (A)
Top Panel

Figure D2

2-2-2. Removal of the Bottom Plate

1. Unscrew the 7 screws (B) on the Bottom Plate. (Figure D3).
2. Lift the Bottom Plate.

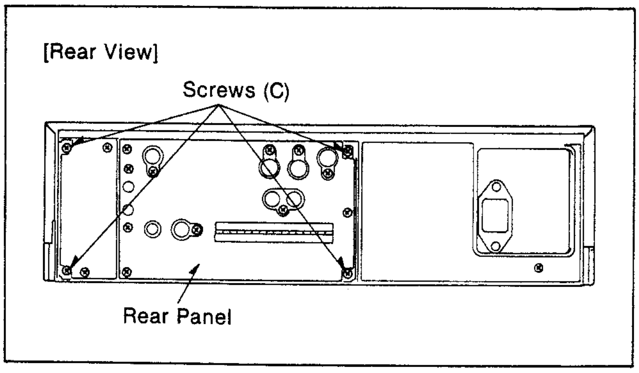


[Bottom view]
Bottom Plate
Screws (B)

Figure D3

2-2-3. Removal of the Rear Panel

1. Unscrew the 4 screws (C) on the Rear Panel (Figure D4).
2. Lift the Rear Panel and carefully pull the panel off from the unit (with taking care for the connection to the Mother C.B.A. at the lower edge on the Rear Jack C.B.A.)

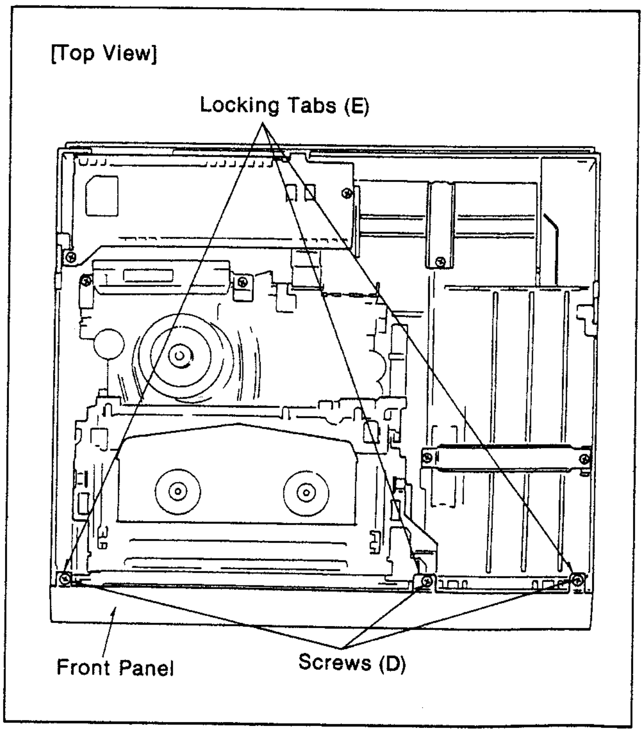


[Rear View]
Screws (C)
Rear Panel

Figure D4

2-2-4. Removal of the Front Panel

1. Unscrew the 3 screws (D) on the top of the Front Panel (Figure D5).
2. Unlock the 3 locking tabs (E) on the top of the Front Panel and the 3 locking tabs (F) on the bottom of Front Panel (Figure D5 and Figure D6).
3. Lift the Front Panel.



[Top View]
Locking Tabs (E)
Front Panel
Screws (D)

Figure D5

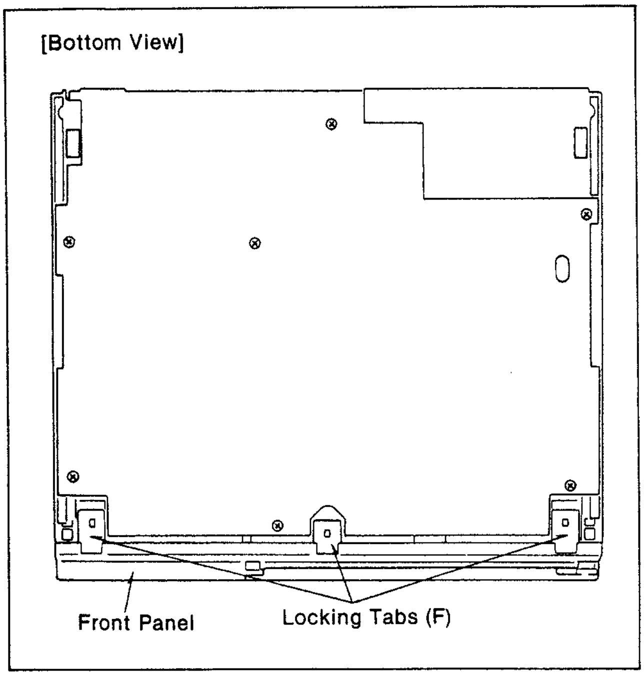

[Bottom View]
Front Panel
Locking Tabs (F)

Figure D6

2-2-5. Removal of the Front (1) and Front (2) C.B.A.

1. Unscrew the 7 screws (G) on the Front Panel (1) C.B.A. and Front Panel (2) C.B.A. together (Figure D7).
2. Carefully unlock the 2 locking tabs (H1) on the top of the Front Panel (1) C.B.A. and a locking tab (H2) on the bottom of the Front Panel (2) C.B.A. (Figure D7).
3. Carefully pull the Front Panel (1) and (2) forward and disconnect the connectors (I).
4. To separate the Front Panel (1) and Front Panel (2), disconnect the connector (J) carefully.

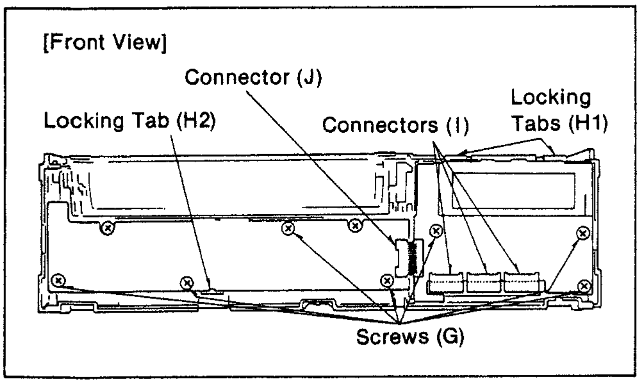

[Front View]
Connector (J)
Locking Tab (H2)
Connectors (I)
Locking Tabs (H1)
Screws (G)

Figure D7

2-2-6. Removal of the Video (1), Video (2) and Video (3) C.B.A.

1. Unscrew 2 screws (K) and remove the C.B. Holder (Figure D8).
2. Carefully lift up the each C.B.A.

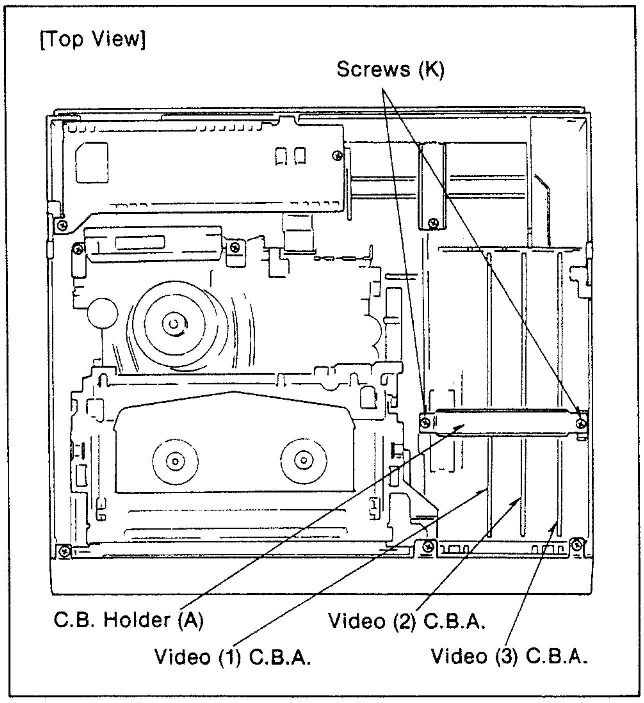

[Top View]
Screws (K)
C.B. Holder (A)
Video (2) C.B.A.
Video (1) C.B.A.
Video (3) C.B.A.

Figure D8

2-2-7. Removal of the System Control C.B.A. and the Audio C.B.A.

1. Unscrew a screw (L) and remove the C.B. Holder (B) (Figure D9).
2. Carefully lift the each C.B.A. upward.

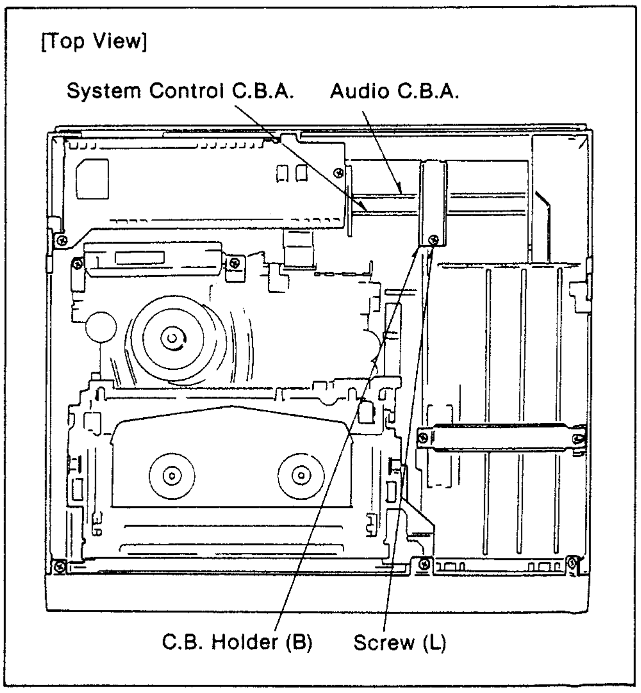

[Top View]
System Control C.B.A.
Audio C.B.A.
C.B. Holder (B)
Screw (L)

Figure D9

2-2-8. Removal of the Head Amp.

1. Unscrew the 2 screws (M-1, M-2) and remove the Shield Plate (Figure D10).
2. Unscrew the 2 screws (N) on the Head Amp C.B.A. (Figure D11).
3. Pull out the Head Amp.

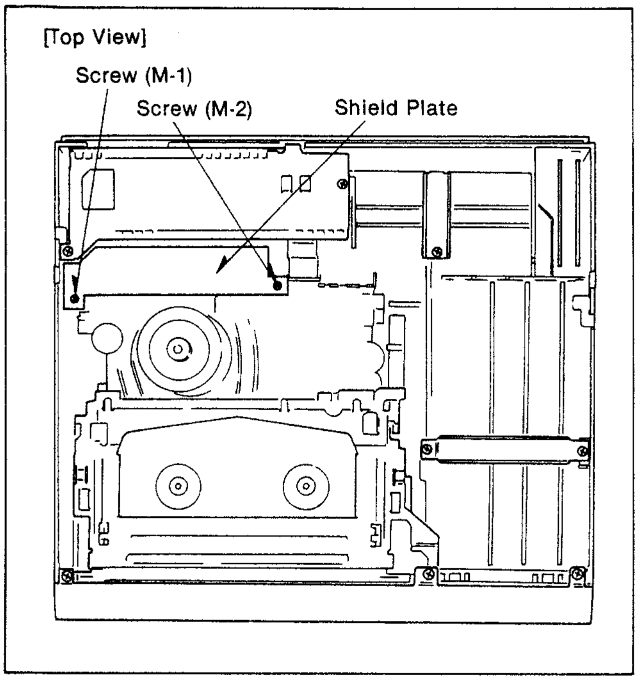

[Top View]
Screw (M-1)
Screw (M-2)
Shield Plate

Figure D10

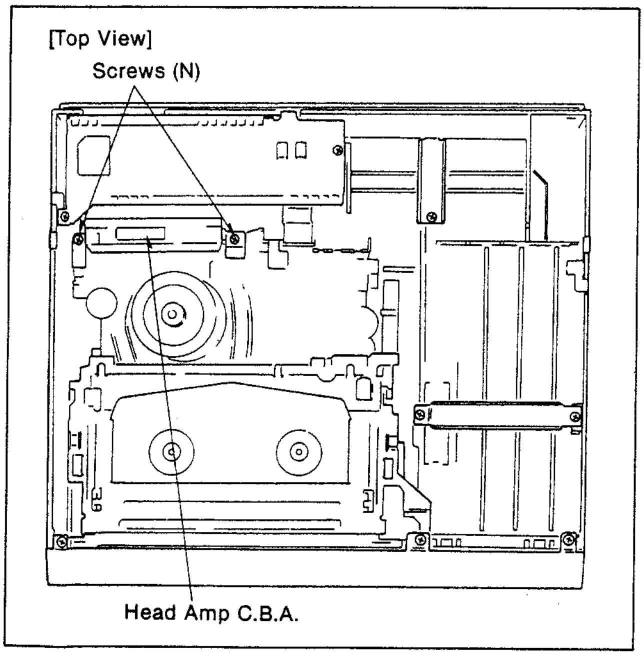

[Top View]
Screws (N)
Head Amp C.B.A.

Figure D11

2-2-9. Removal of the Power Unit

1. Unscrew the 2 screws (O-1) on the Power Unit (Figure D12).
2. Unscrew a screw (O-2) on the Power Unit and remove the GND lug terminal.
3. Unscrew the 2 screws (P-1, P-2) on the rear side (Figure D13).
4. Pull out the Power Unit.

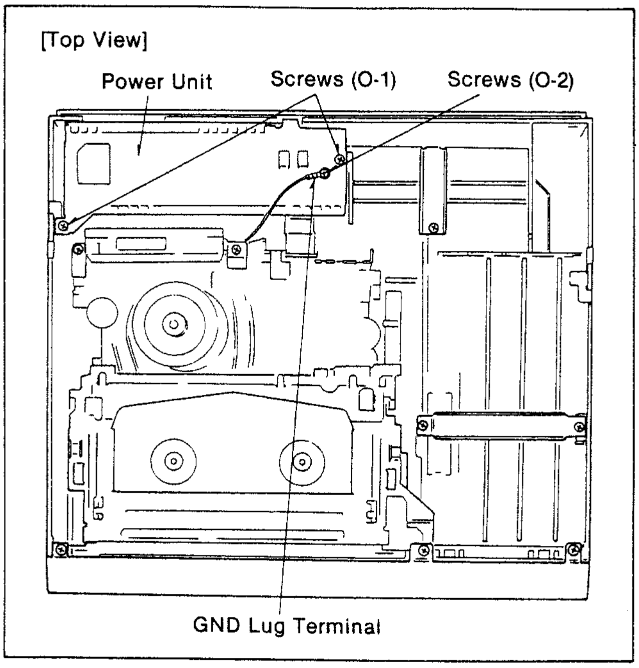

[Top View]
Power Unit
Screws (O-1)
Screws (O-2)
GND Lug Terminal

Figure D12

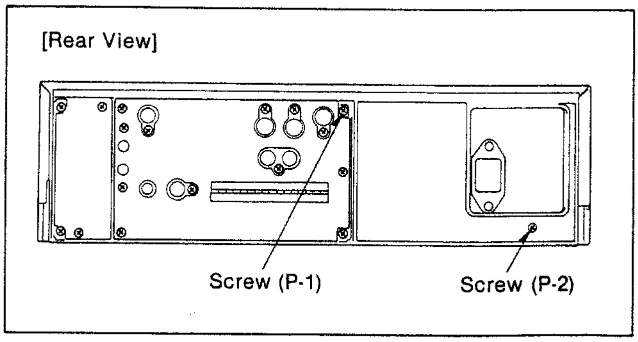

[Rear View]
Screw (P-1)
Screw (P-2)

Figure D13

2-2-10. Removal of the Rear Hack C.B.A.

1. Unscrew the 8 screws (Q-1, Q-2) on the Rear Panel (Figure D14).
2. Unscrew the 2 screws (R) on the Rear Jack C.B.A. (Figure D15).
3. Remove the Rear Jack C.B.A.

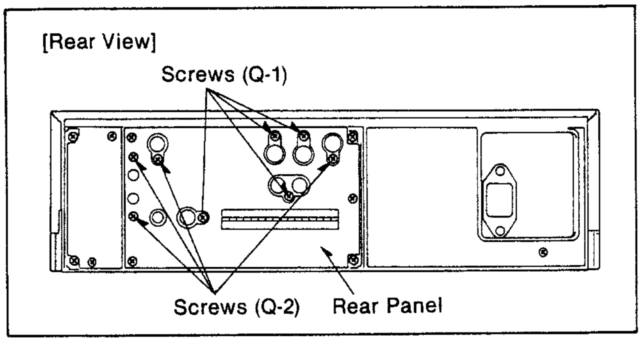

[Rear View]
Screws (Q-1)
Screws (Q-2)
Rear Panel

Figure D14

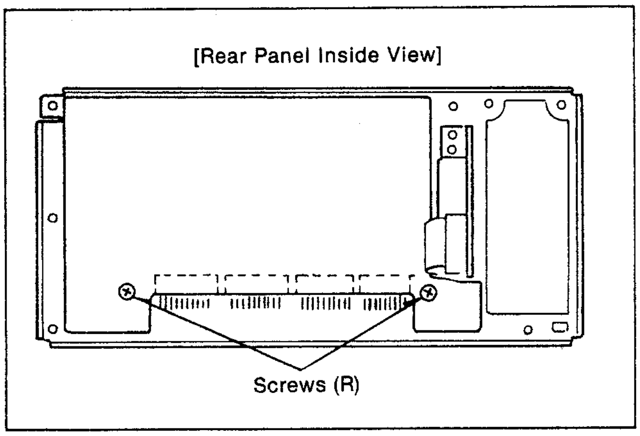

[Rear Panel Inside View]
Screws (R)

Figure D15

2-2-11. Removal of the Mic Amp Sub C.B.A.

1. Unscrew the 2 screws (S) on the Mic Amp Sub C.B.A. (Figure D16).
2. Remove the Mic Amp Sub C.B.A.

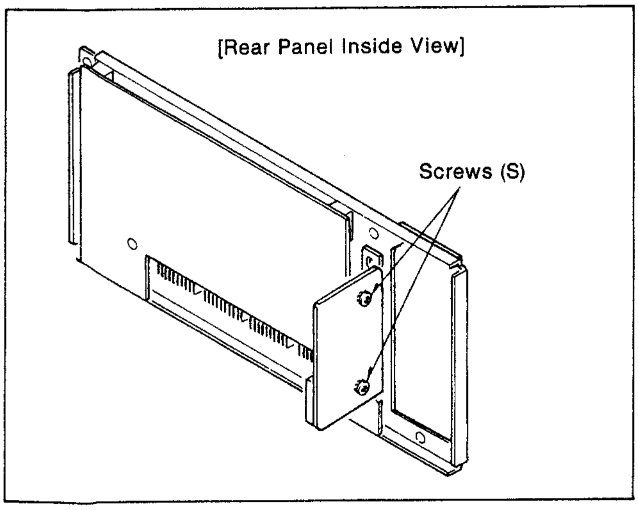

[Rear Panel Inside View]
Screws (S)

Figure D16

2-2-12. Removal of the Servo C.B.A.

1. Unscrew the 2 screws (T) on the Servo C.B.A. (Figure D17).
2. Open the Servo C.B.A. (Figure D18).
3. Disconnect a Flexible Cable (P2302) and the connectors (P2004, P2005, P2006 and P2301).
4. Close the Servo C.B.A. and then disconnect the 3 flexible cables (P2001, P2002 and P2003) and the 2 servo C.B.A. clamps (U).
5. Remove the Servo C.B.A.

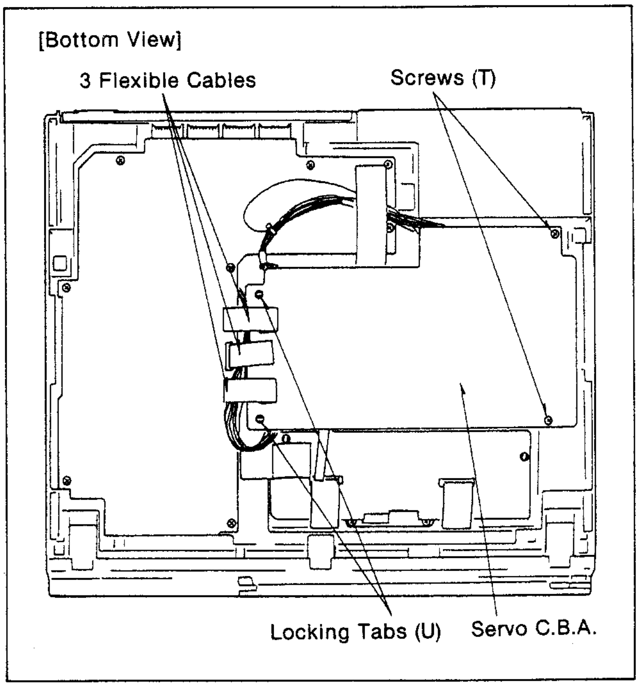

[Bottom View]
3 Flexible Cables
Screws (T)
Locking Tabs (U)
Servo C.B.A.

Figure D17

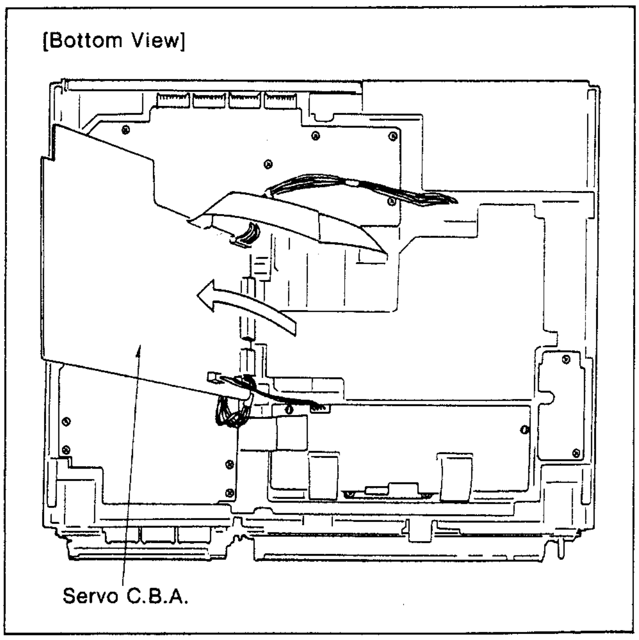

[Bottom View]
Servo C.B.A.

Figure D18

2-2-13. Removal of the Back Up Sub C.B.A.

1. Unscrew 2 screws (V) on the Back Up C.B.A. (Figure D19).
2. Lift the Back Up Sub C.B.A. out.

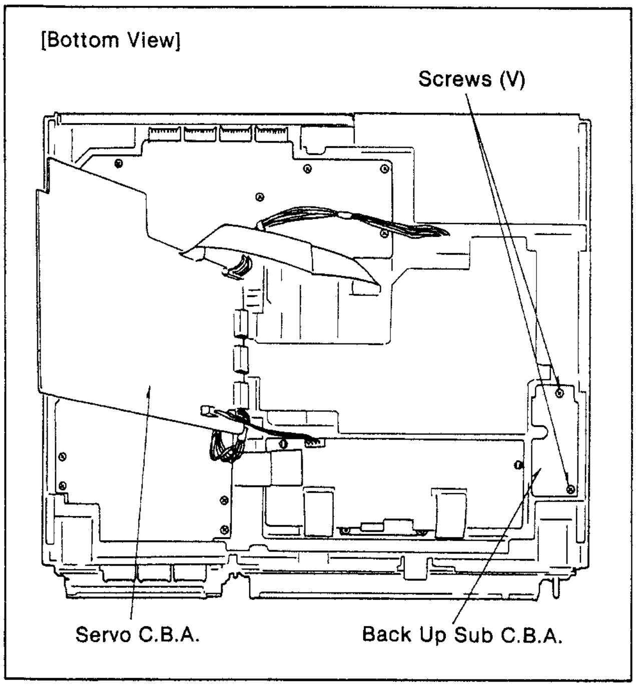

[Bottom View]
Screws (V)
Servo C.B.A.
Back Up Sub C.B.A.

Figure D19

2-2-14. Removal of the Mother C.B.A.

Note: Before removing the Mother C.B.A., be sure to remove the Power Unit, Front(1) and (2) C.B.A., Rear Jack C.B.A. Video (1), (2) and (3) C.B.A., System Control C.B.A. and Audio C.B.A.

1. Unscrew the 8 screws (W) on the Mother C.B.A. (Figure D20).
2. Disconnect the 4 Flexible Cable (P921, P922, P923, P924) from the Mother C.B.A.
3. Lift the Mother C.B.A. and then disconnect a flexible cable (P901) and the 2 connectors (P902 and P925).
4. Removal the Mother C.B.A.

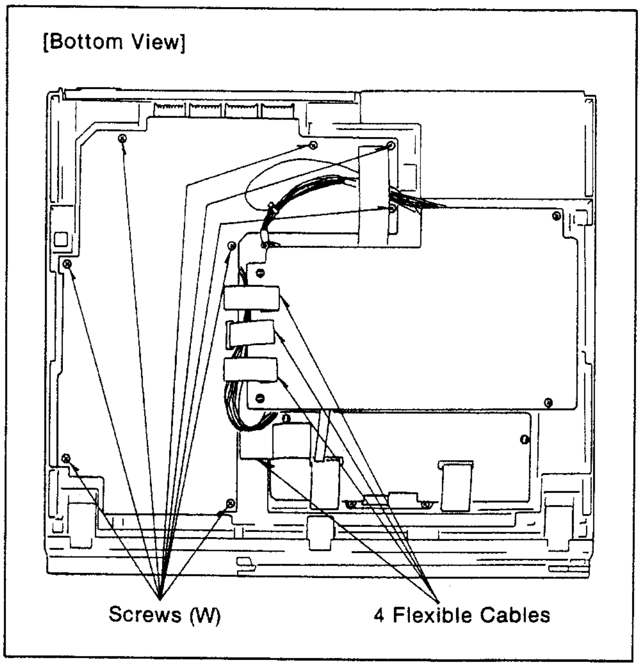

[Bottom View]
Screws (W)
4 Flexible Cables

Figure D20

2-2-15. Removal of the Reel Drive C.B.A.

1. Unlock the 2 clamps (X) on the Reel Drive C.B.A. (Figure D21).
2. Disconnect the 3 Flexible Cable (P2701, P2704 and P2705) and a connector (P2702).
3. Unsolder a connector (P2703) and then lift the Reel Drive C.B.A.

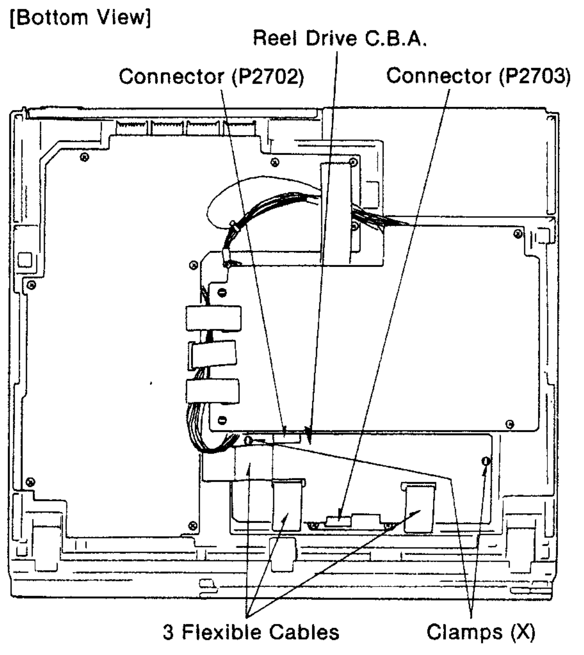

[Bottom View]
Reel Drive C.B.A.
Connector (P2702)
Connector (P2703)
3 Flexible Cables
Clamps (X)

Figure D21

2-2-16. Removal of the Cassette Compartment Unit

1. Unscrew the 2 screws (Y-1) and a screw (Y-2)(Figure D22).
2. Disconnect 2 wires and 4 wires from P1508 on the right side of the Cassette Compartment Unit (Figure D22).
3. Remove the Top Plate.

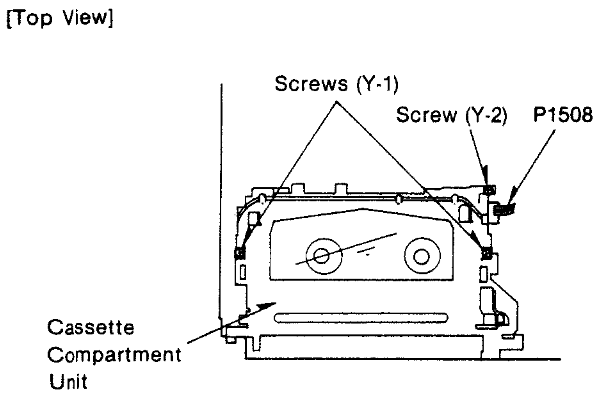

[Top View]
Screws (Y-1)
Screw (Y-2)
P1508
Cassette Compartment Unit

Figure D22

4. Remove a cassette holder unit.

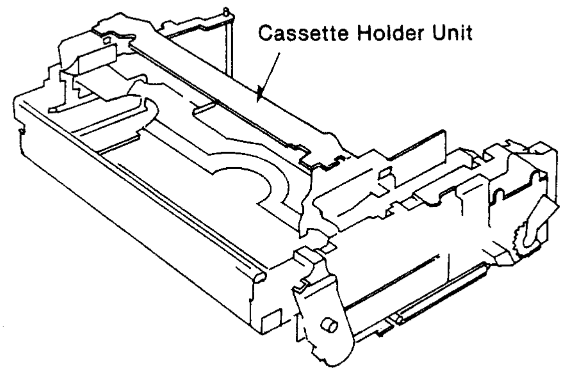

Cassette Holder Unit

Figure D23

5. Unscrew the 4 screws (Z) and remove the Cassette Compartment Unit.

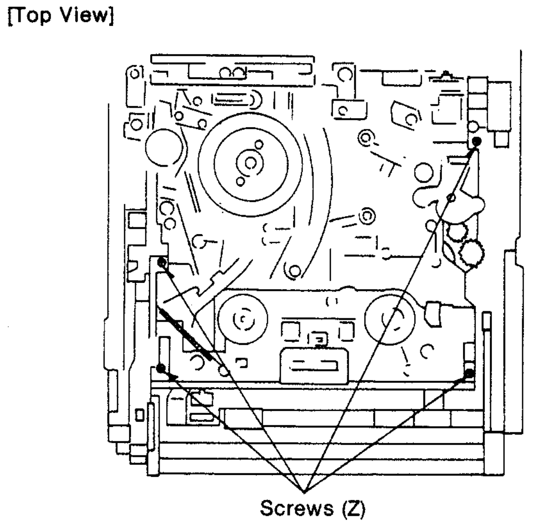
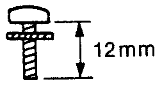
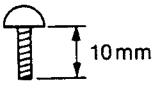
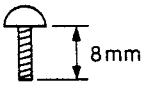
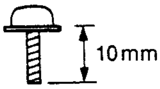
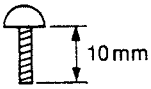
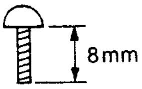
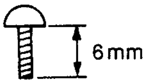
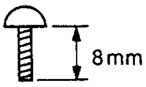
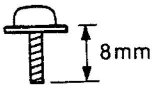
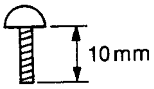
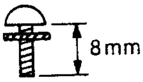
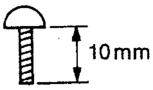
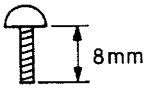
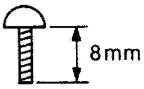
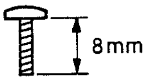
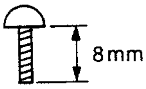
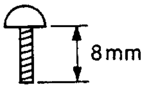

[Top View]
Screws (Z)

Figure D24

Note: When installing the Cassette Compartment Unit, refer to Mechanical Adjustment Procedures.

SCREWS

(A)  12mm VHD0426 (SILVER)	(B)  10mm XTV3+10G (GOLD)	(C), (P-1), (Q-2)  8mm XTV3+8FFZ (BLACK)	(D)  10mm XTW3+10PR (RED)	(G)  10mm XTV4+10JR (RED)
(K), (L)  8mm XTV3+8FR (RED)	(M-1)  6mm XYN3+F6 (GOLD)	(M-2)  8mm XTV3+8FFR (RED)	(N)  8mm XTW3+8LR (RED)	(O-1), (T), (V), (W)  10mm XTV3+10GR (RED)
(O-2), (S)  8mm XYE3+EF8 (GOLD)	(P-2)  10mm XTV3+10FZ (BLACK)	(Q-1)  8mm XTV3+8GFZ (BLACK)	(R)  8mm XTV3+8F (GOLD)	(Y-1)  8mm XTB3+8G (GOLD)
(Y-2)  8mm XTV3+8G (GOLD)	(Z)  8mm XTV26+8FR (RED)			

Section 3

MAINTENANCE

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3-1. REGULAR MAINTENANCE

The purpose of periodic maintenance is to preserve the functioning of this machine throughout its useful life. The user or service dealer should perform these maintenance regularly to ensure that maximum utility is obtained from the machine.

The VCR is a complicated piece of equipment. It contains many belts, rollers, heads etc., which become worn, and deteriorate as time goes by, causing trouble. Dust and dirt will also impede the proper functioning of the machine. In light of this, it is very important that overall maintenance be done according to the maintenance chart to maintain the functions of the VCR, and to avoid accidental problems. This maintenance should also be performed after any repairs are done on the equipment.

The VCR used for business applications requires particular attention for several reasons. The installation conditions and applications are not always the best. long use times, to poor environmental conditions may adversely affect the life-span and performance of the machine. Regular maintenance assures that the purchaser obtains the maximum value for his expenditure. Accordingly, the necessity of regular maintenance should be fully explained at the time of sale, as well as during after-sale repairs.
Please note that the recommended maintenance schedule depends on temperature and humidity.

3-2. MAINTENANCE CHART

The following periodic maintenance is required to prolong the life of the machine by using the Time Lapse mode.

Ref. No. in P/L	Parts Name	Hour								Ref. No. in P/L	Parts Name	Hour							
		500	1000	2000	3000	4000	5000	6000	10000			500	1000	2000	3000	4000	5000	6000	10000
——	Tape Transporters	●	●	●	●	●	●	●	●	1-48	Inclined Base (S)(2) U								■
1-19	A/C Head (1) U	●	●	●	●	●	●	●	○	1-45	Inclined Base (T)(1) U								■
1-56	FE Head	●	●	●	●	●	●	●	○	1-66	Head Cleaning U		○	○	○	○	○	○	○
1-41	Upper Cylinder U	●	○	○	○	○	○	○	○	1-36	Mode SW						○		○
1-42	Lower Cylinder U	●	○	○	○	○	○	○	○	2-8	Stator Base						○		○
——	Capstan Shaft	●	●	●	●	●	●	●	*1 ○	2-24	Reel Table U (S)						○		○
1-24	Housing Unit								○	2-23	Reel Table U (T)						○		○
1-22	Thrust Screw								○	2-39	Loading Cam Gear								■
1-23	Oil Seal								○	2-33	Main Cam Gear								■
2-28	Capstan Rotor Unit								○	2-1	Worm Shaft								■
1-25	Pressure Roller U	●	●	○	●	○	●	○	○	2-3	Worm Wheel								■
2-2	Loading Belt			○		○		○	○	——	P5 Shaft								■
1-7	Loading Motor U								○	BAT2991	Battery	Approx. 2 years							

*1: Reprace the Capstan Rotor Unit

Symbol	Maintenance	Requirement	Remark
●	Cleaning	Ethyl-alcohol or Cleaning Liquid (Purchase locally)	Wipe dirt from the parts using soft cloth impregnated with Ethyl-Alcohol. Note: When cleaning rubber parts, avoid using excessive alcohol since it may acceleratedeterioration of these parts. After cleaning with alcohol, wipe the alcohol quickly and thoroughly.
○	Replacement	————	
■	Greasing	Molytone Grease (Mor265)	Wipe the old grease and apply new grease.

3-3. PARTS LOCATION

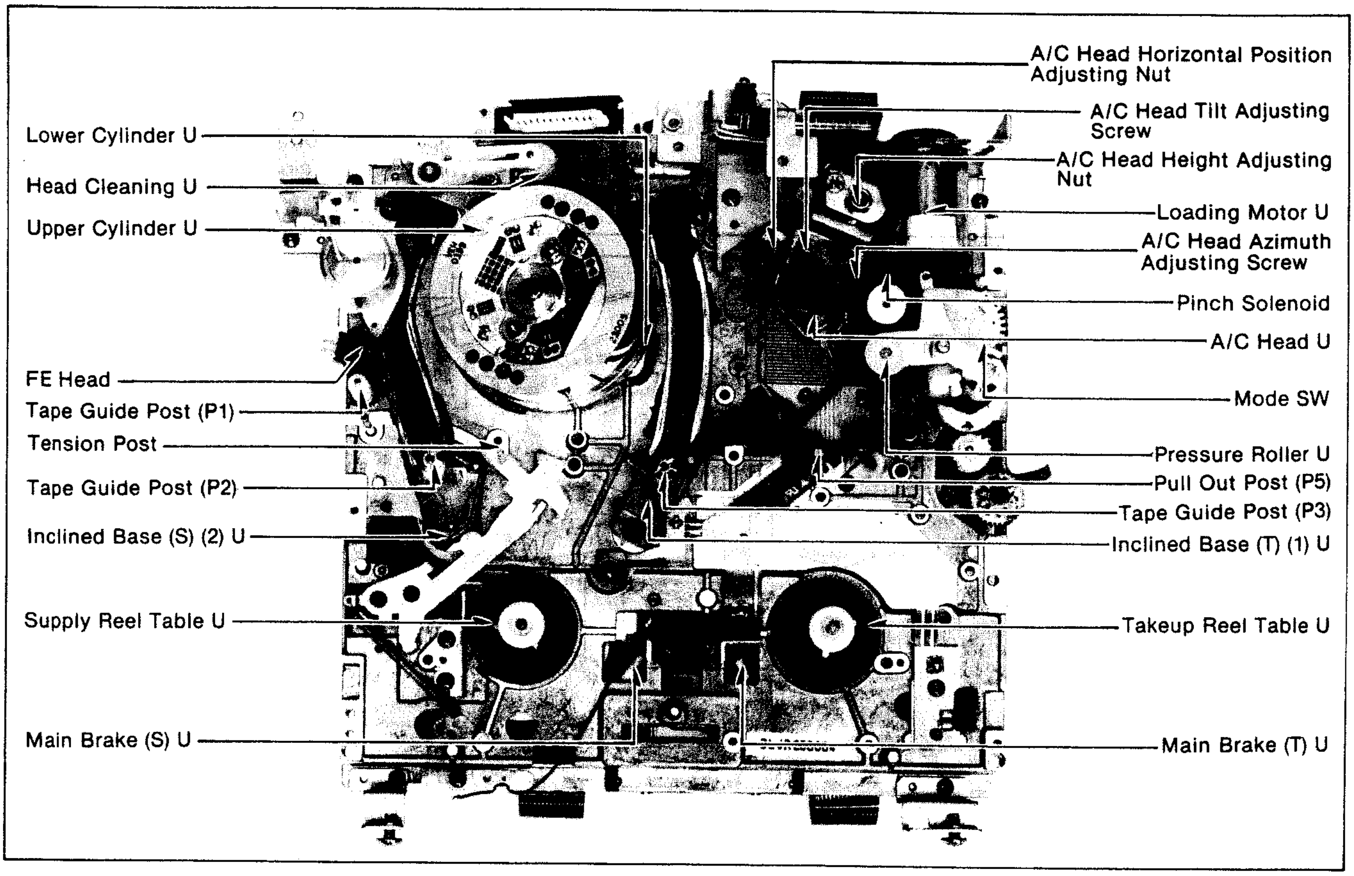
Lower Cylinder U
Head Cleaning U
Upper Cylinder U
FE Head
Tape Guide Post (P1)
Tension Post
Tape Guide Post (P2)
Inclined Base (S) (2) U
Supply Reel Table U
Main Brake (S) U
A/C Head Horizontal Position Adjusting Nut
A/C Head Tilt Adjusting Screw
A/C Head Height Adjusting Nut
Loading Motor U
A/C Head Azimuth Adjusting Screw
Pinch Solenoid
A/C Head U
Mode SW
Pressure Roller U
Pull Out Post (P5)
Tape Guide Post (P3)
Inclined Base (T) (1) U
Takeup Reel Table U
Main Brake (T) U

Figure 3-1 Top View

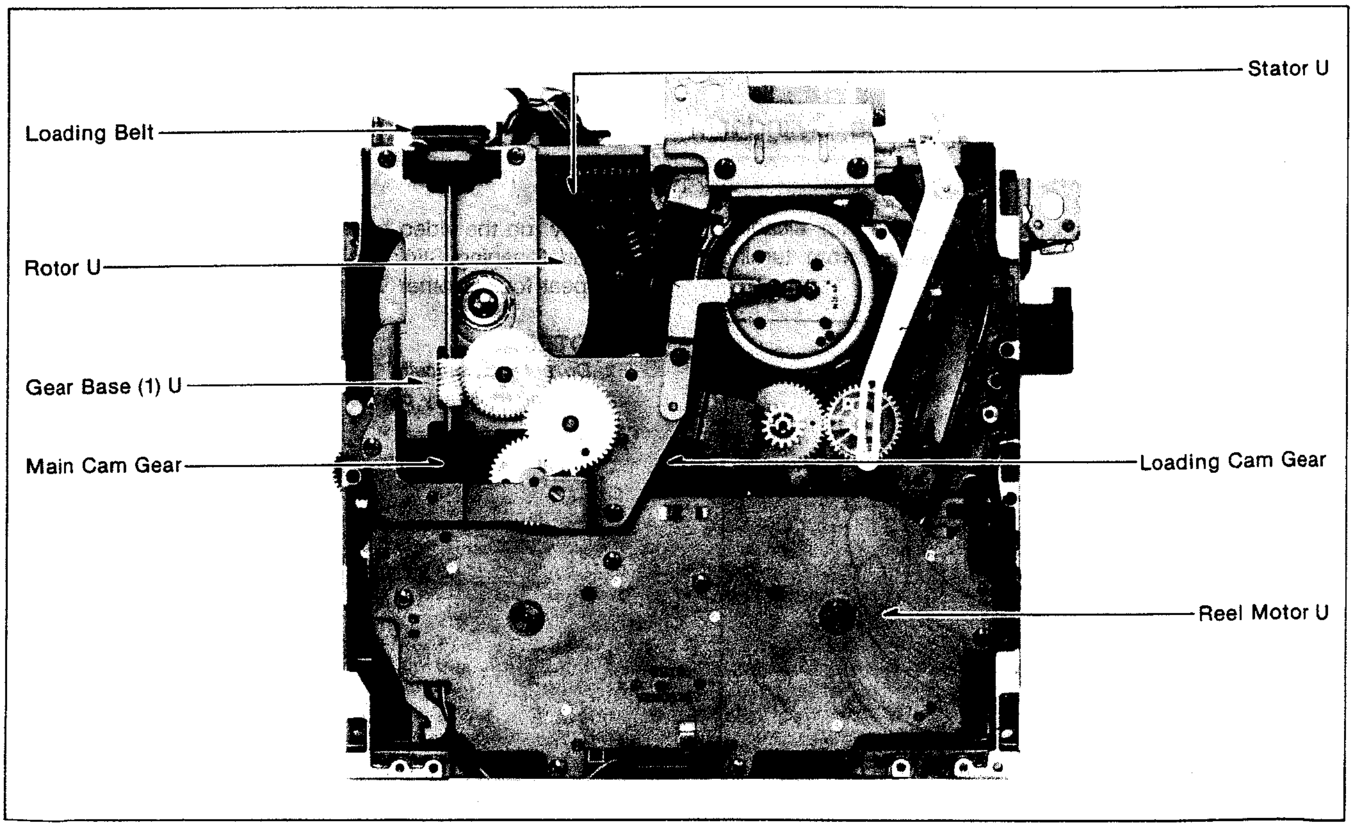
Stator U
Loading Belt
Rotor U
Gear Base (1) U
Main Cam Gear
Loading Cam Gear
Reel Motor U

Figure 3-2 Bottom View

3-4. MAINTENANCE PROCEDURES

3-4-1. HOW TO EJECT MANUALLY

If the electrical circuit is defective and the action of unloading and front unloading dont work properly, it is possible to eject manually as follows.

1. Take out the Main AC.
2. Release the direction as shown in Figure 3-3.
3. Rotate the Wormshaft to clockwise until cassette is ejected.

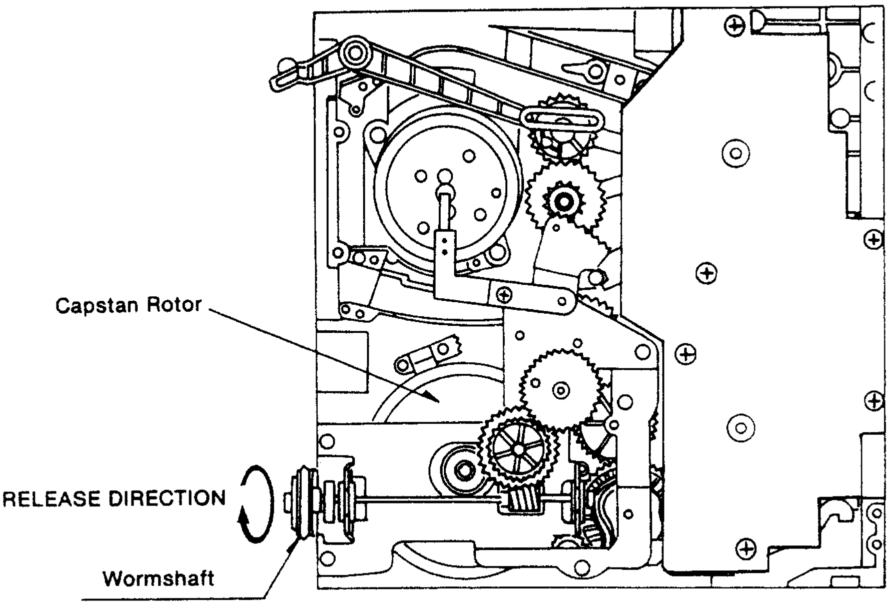
Capstan Rotor
RELEASE DIRECTION
Wormshaft

Figure 3-3

3-4-2. CYLINDER MAINTENANCE PROCEDURES

A. Procedures for Cleaning of the Cylinder Unit

1. Position the video head to permit access for cleaning and hold the upper cylinder to keep it from turning while cleaning.

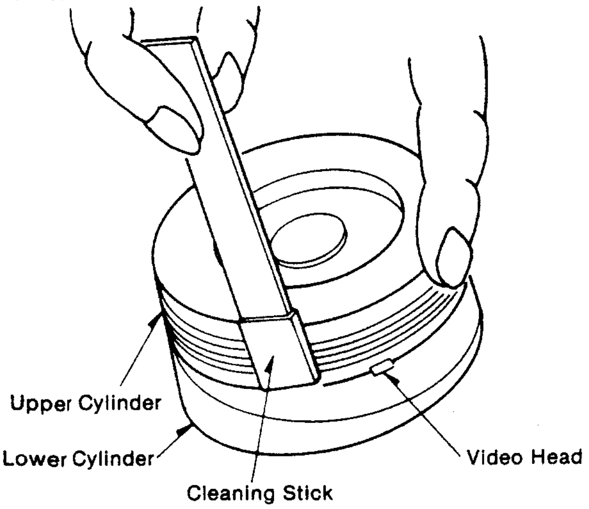
Upper Cylinder
Lower Cylinder
Video Head
Cleaning Stick

Figure 3-4

2. Gently rub the video head in direction of tape travel with Head Cleaning Stick moistened with Cleaning Liquid.
3. Repeat for the other video heads. (Figure 3-4)

<<NOTES>>

1. *Do not rub vertically.*
2. *Do not apply any pressure to heads.*

B. Replacement of the Upper Cylinder Unit

1. First remove two screws as shown in Figure 3-5. Then unsolder 8 (Figure 3-6) of the soldered portions indicated by arrows on the Upper Cylinder, and finally remove the Upper Cylinder.

<<NOTE>>

Soldered portion can be easily removed by using solder sucking wire, etc.

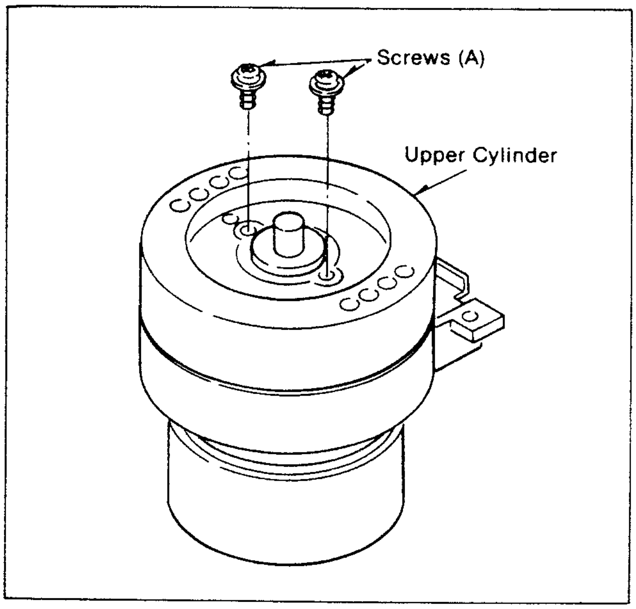
Screws (A)
Upper Cylinder

Figure 3-5

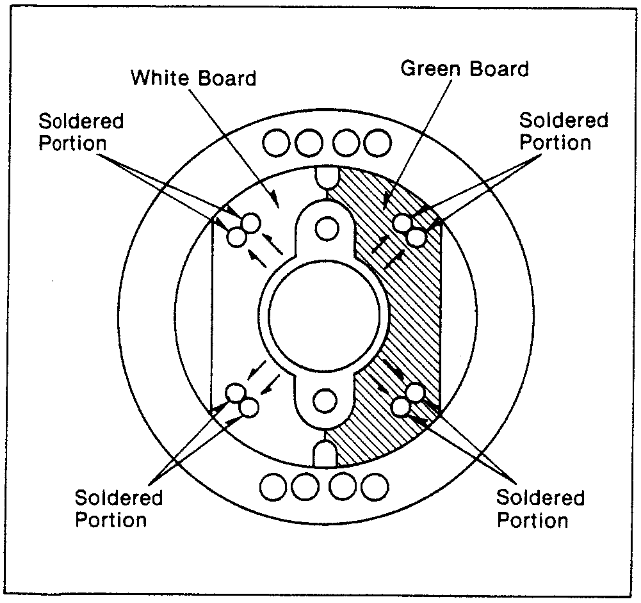
White Board
Green Board
Soldered Portion
Soldered Portion
Soldered Portion
Soldered Portion

Figure 3-6

2. The Upper Cylinder unit can be reinstalled by reversing the removal procedure. However, when Upper Cylinder is installed, be extremely carefully so that white portion of P.C. board of Upper Cylinder correctly matches the white portion of bottom cylinder as shown in Figure 3-7.

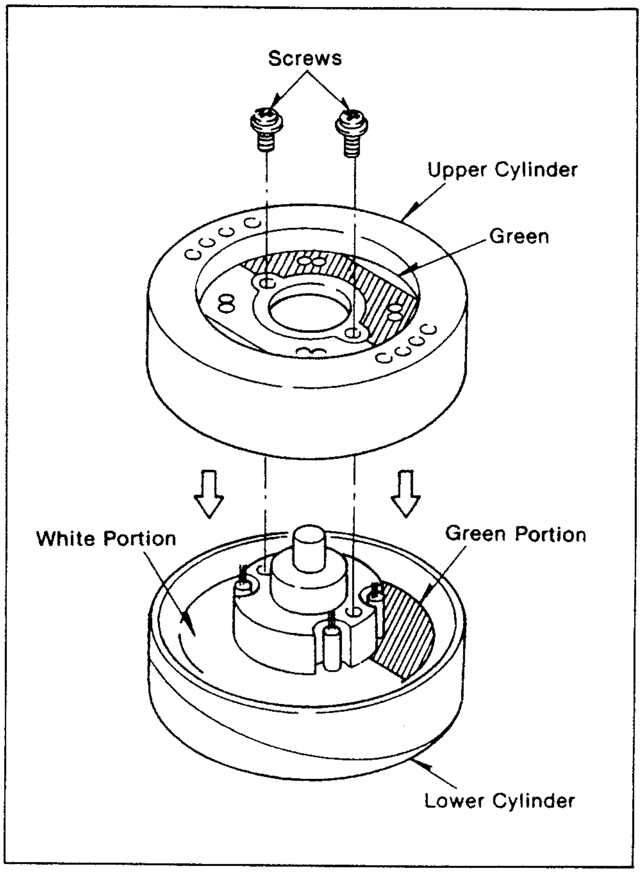
Screws
Upper Cylinder
Green
White Portion
Green Portion
Lower Cylinder

Figure 3-7

<<NOTE>>

If the Upper Cylinder Unit is reversal installed, no color will appear when playing back pre-recorded tapes.

C. Replacement of the Lower Cylinder Unit

1. Disconnect 2 connectors from the Head Amp Unit.
2. Unscrew 2 screws and remove the Head Amp Unit.
3. Remove the Cleaning Rod from bottom side.
4. Disconnect a connector (D)(Figure 3-8).
5. Unscrew 3 screws (C)(Figure 3-8). Since there is very little clearance between DD Cylinder (Lower Cylinder) Unit and Chassis, remove the Cylinder gently and carefully. (Figure 3-8).

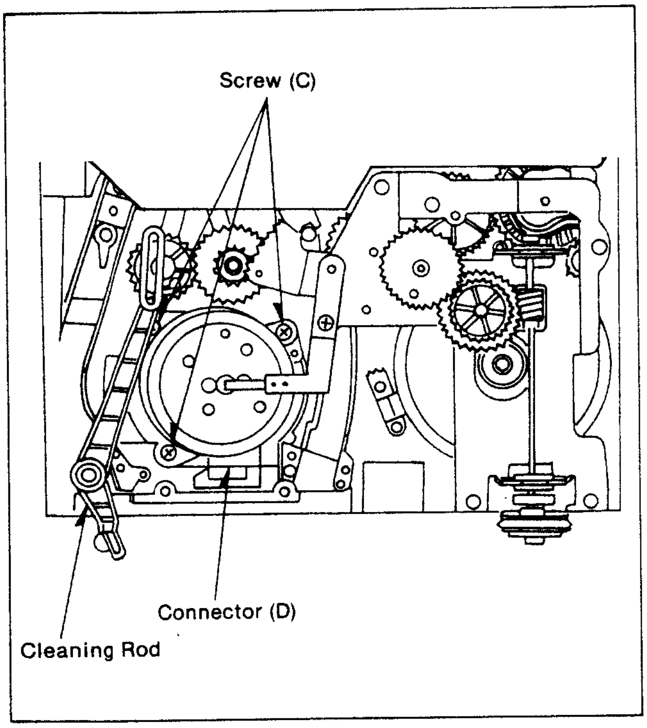
Screw (C)
Connector (D)
Cleaning Rod

Figure 3-8

6. Reinstall the new DD Cylinder (Lower Cylinder) Unit in the chassis, tighten the 3 screws (C). Then connect a connectors and reinstall the Cleaning Rod.
7. Re-install the Head Amp C.B.A.

D. Adjustment After Re-Installing

Figure 3-9 shows the order of steps for adjusting the mechanical and electrical.

These adjustments should be performed after completion of reinstalling the Upper Cylinder or Lower Cylinder Unit.

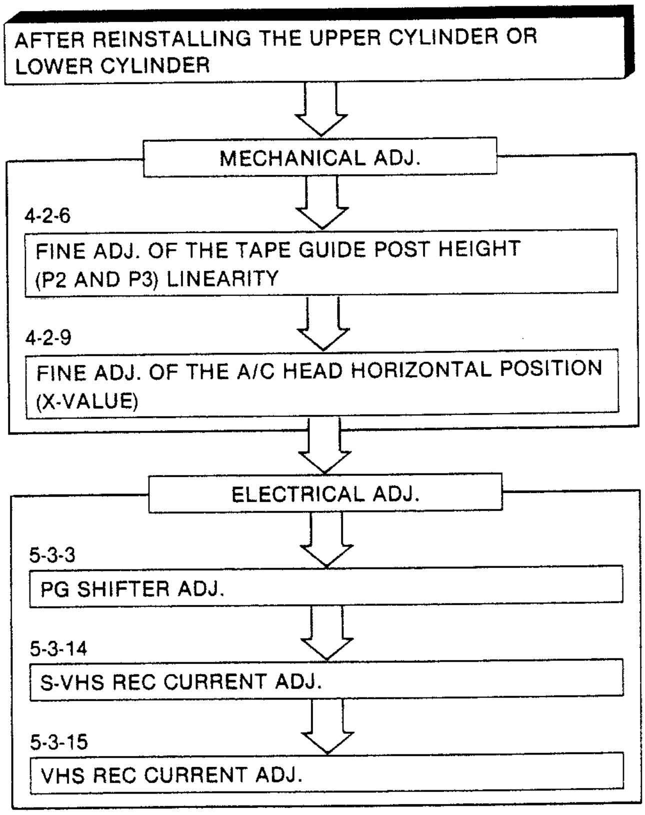
AFTER REINSTALLING THE UPPER CYLINDER OR LOWER CYLINDER
MECHANICAL ADJ.
4-2-6
FINE ADJ. OF THE TAPE GUIDE POST HEIGHT (P2 AND P3) LINEARITY
4-2-9
FINE ADJ. OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE)
ELECTRICAL ADJ.
5-3-3
PG SHIFTER ADJ.
5-3-14
S-VHS REC CURRENT ADJ.
5-3-15
VHS REC CURRENT ADJ.

Figure 3-9

3-4-3. A/C HEAD MAINTENANCE PROCEDURES

A. Replacement of the A/C Head (1) Unit

1. Disconnect a connector (H). (Figure 3-10)
2. Unscrew 3 screws (E)(F)(G) with a spring and then remove the A/C Head (1) Unit (Figure 3-10).

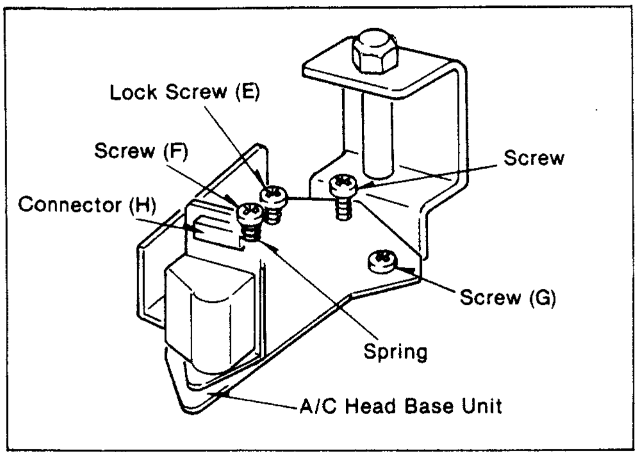
Lock Screw (E)
Screw (F)
Connector (H)
Screw
Screw (G)
Spring
A/C Head Base Unit

Figure 3-10

3. The A/C Head (1) Unit can be reinstalled by reversing the removal procedure.

B. Adjustment After Re-installing

Figure 3-11 shows the order of steps for adjusting the mechanical and electrical.
These adjustments should be performed after completion of reinstalling the A/C Head (1) Unit.

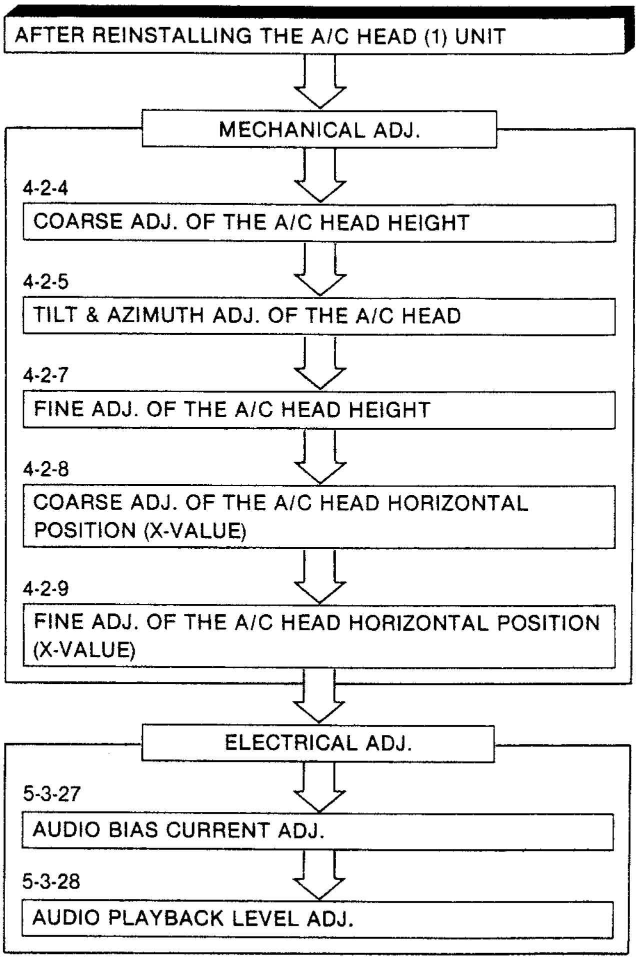
AFTER REINSTALLING THE A/C HEAD (1) UNIT
MECHANICAL ADJ.
4-2-4
COARSE ADJ. OF THE A/C HEAD HEIGHT
4-2-5
TILT & AZIMUTH ADJ. OF THE A/C HEAD
4-2-7
FINE ADJ. OF THE A/C HEAD HEIGHT
4-2-8
COARSE ADJ. OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE)
4-2-9
FINE ADJ. OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE)
ELECTRICAL ADJ.
5-3-27
AUDIO BIAS CURRENT ADJ.
5-3-28
AUDIO PLAYBACK LEVEL ADJ.

Figure 3-11

3-4-4. FULL ERASE HEAD MAINTENANCE PROCEDURES

A. Replacement of the Full Erase Head

1. Disconnect a connector (J).
2. Unscrew a screw (K) and remove the Full Erase Head.

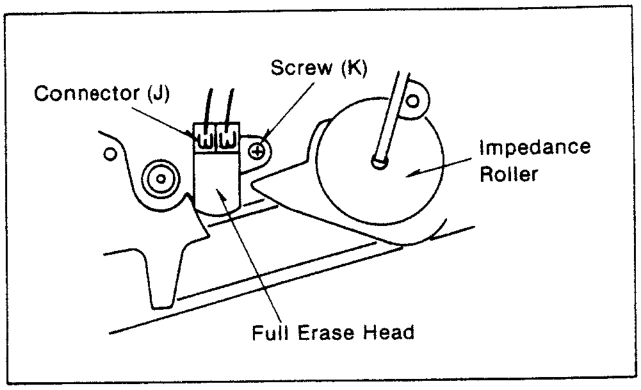
Connector (J)
Screw (K)
Impedance Roller
Full Erase Head

Figure 3-12

3. The new Full Erase Head can be reinstalled by reversing the removal procedure.

3-4-5. PRESSURE ROLLER MAINTENANCE PROCEDURES

A. Replacement of the Pressure Roller Unit

1. Place the deck in STOP or EJECT mode.
2. Remove the Pinch Can Cap.
3. Remove the Pressure Roller Unit.

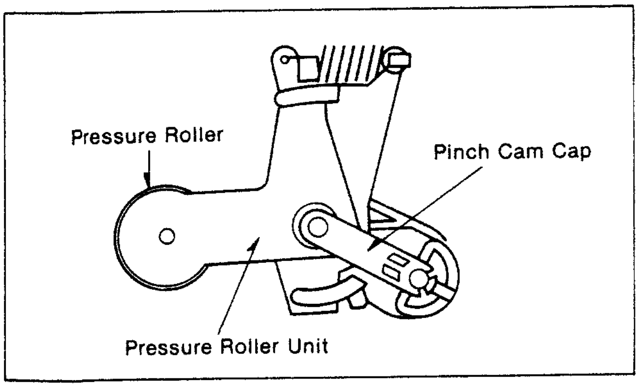
Pressure Roller
Pinch Cam Cap
Pressure Roller Unit

Figure 3-13

4. The new Pressure Roller Unit can be re-installed by reversing the removal procedure.

3-4-6. REEL MOTOR UNIT MAINTENANCE PROCEDURES

A. Replacement of the Reel Unit

1. Remove 6 screws (L) and carefully lift the DD Reel Unit.
2. Disconnect a connector.

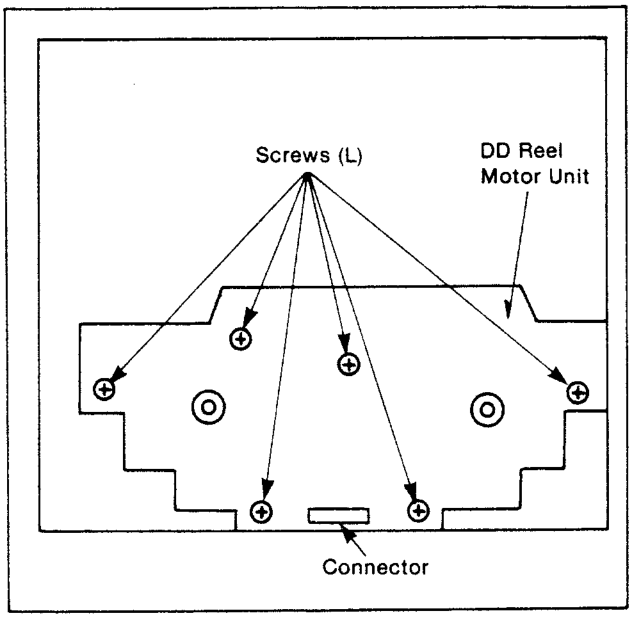
Screws (L)
DD Reel Motor Unit
Connector

Figure 3-14

3. The Reel Motor Unit can be re-installed by reversing the removal procedure.

<<NOTE>>
When assembling the DD Reel Motor Unit, slide the Main Rod to far left side by rotating a Center Gear.

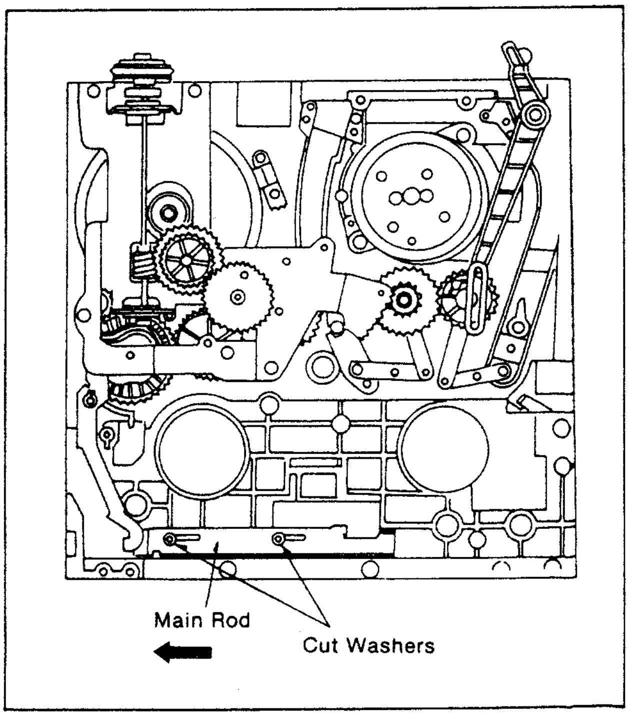
Main Rod
Cut Washers

Figure 3-15

3-4-7. LOADING MOTOR UNIT MAINTENANCE PROCEDURES

A. Replacement of the Loading Motor Unit

1. Remove the Loading Belt.
2. Remove the Loading Motor Pulley.
3. Disconnect a connector.
4. Unscrew 2 screws (M) and remove the Loading Motor Unit.

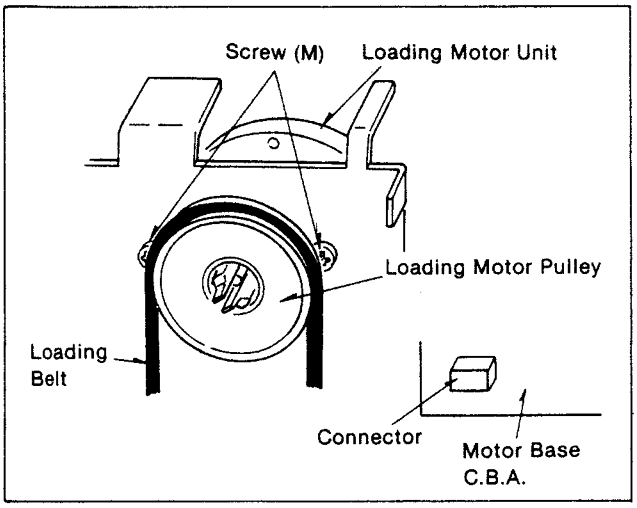
Screw (M)
Loading Motor Unit
Loading Motor Pulley
Loading Belt
Connector
Motor Base C.B.A.

Figure 3-16

5. The Loading Motor Unit can be reinstalled by reversing the removal procedure.

3-4-8. HEAD CLEANING PAD UNIT MAINTENANCE PROCEDURES

A. Replacement of the Head Cleaning Pad

1. Remove a Cut Washer (N)(Figure 3-17) and the Head Cleaning Pad Unit.

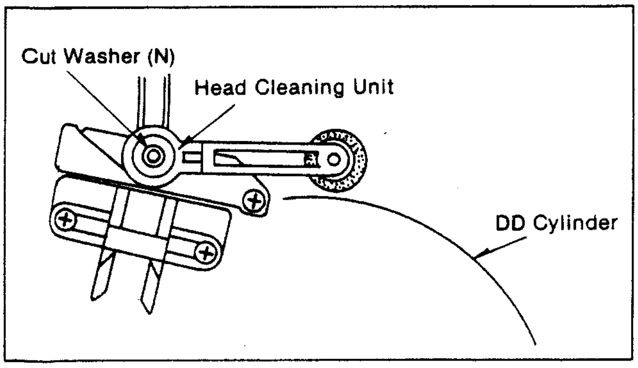
Cut Washer (N)
Head Cleaning Unit
DD Cylinder

Figure 3-17

2. Remove a Cut Washer (V)(Figure 3-18) and replace the Head Cleaning Pad.
3. The Head Cleaning Pad Unit can be reinstalled by reversing the removal procedure.

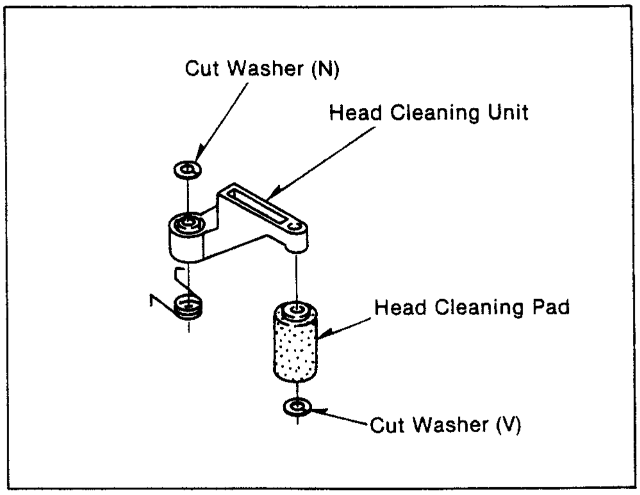
Cut Washer (N)
Head Cleaning Unit
Head Cleaning Pad
Cut Washer (V)

Figure 3-18

3-4-9. MODE SWITCH MAINTENANCE PROCEDURES

A. Replacement of the Mode Switch

1. Place the deck in the STOP mode.
2. Remove the Cassette Compartment Unit. (Refer to Disassembly Procedures)
3. Remove the Pinch Cam Cap and Pressure Roller Unit.
4. Remove the Pinch Cam.

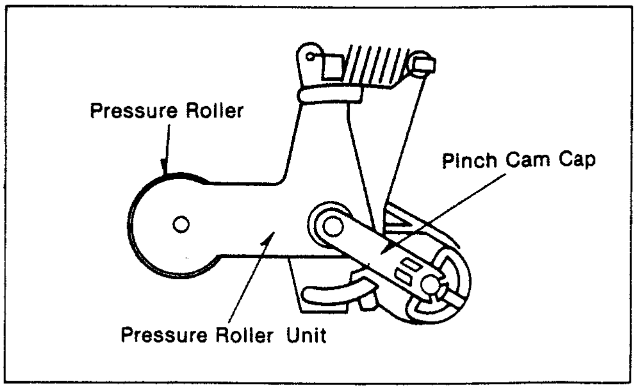
Pressure Roller
Pinch Cam Cap
Pressure Roller Unit

Figure 3-19

5. Unscrew 2 screws (P) and remove the Loading Motor Base.
6. Unscrew a screw (Q) and unsolder 5 of soldered portions.
7. Finally remove the Mode Switch.
8. Install a Mode Switch and tighten screw (Q), then solder 5 soldering portions.
9. Install the Pinch Cam and Pressure Roller Unit.(Refer to " Assembly Procedures of Pinch Cam & Pressure Roller Unit.")
10. Install the Loading Motor Base and tighten screws (P).
11. Install the Cassette Compartment. (Refer to Reinstallation of Cassette Compartment.)

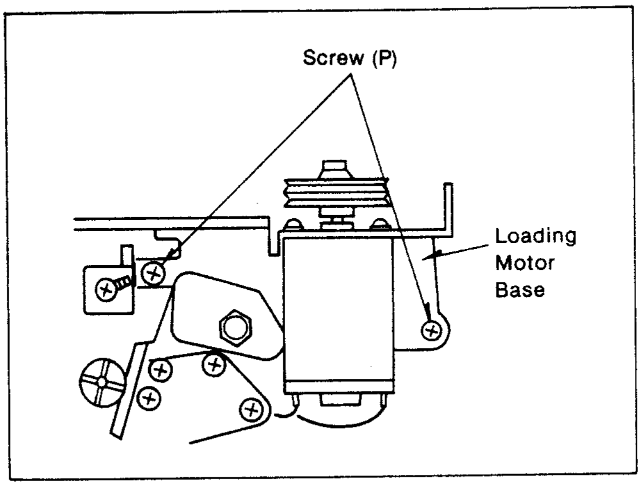
Screw (P)
Loading Motor Base

Figure 3-20

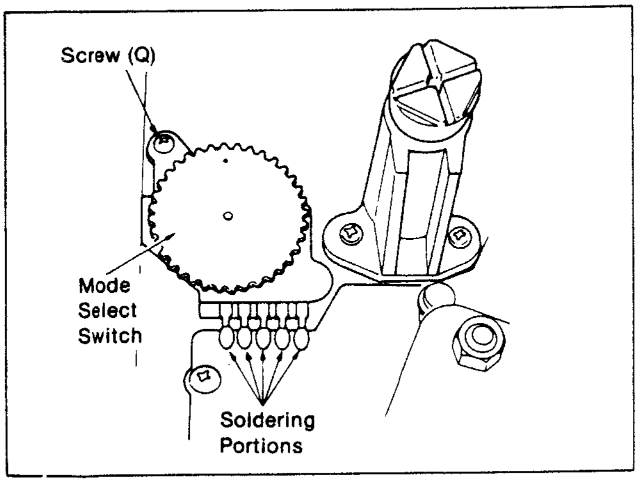
Screw (Q)
Mode Select Switch
Soldering Portions

Figure 3-21

3-4-10. PULL-OUT POST (P5) SHUFT MAINTENANCE PROCEDURES

1. Remove a Nut (R) and remove the Pull-out Post (P5) as shown in Figure 3-22.
2. Wipe dirt from the shuft using soft cloth.
3. Apply a Morlytone Grease to the shuft.
4. Re-iustall the Pull-out Post (P5) and the Nut (R).
5. Adjust the height of Pull-out Post (P5)(Refer to 5-2-3. Adjustment of the Pull-out Post (P5) Height).

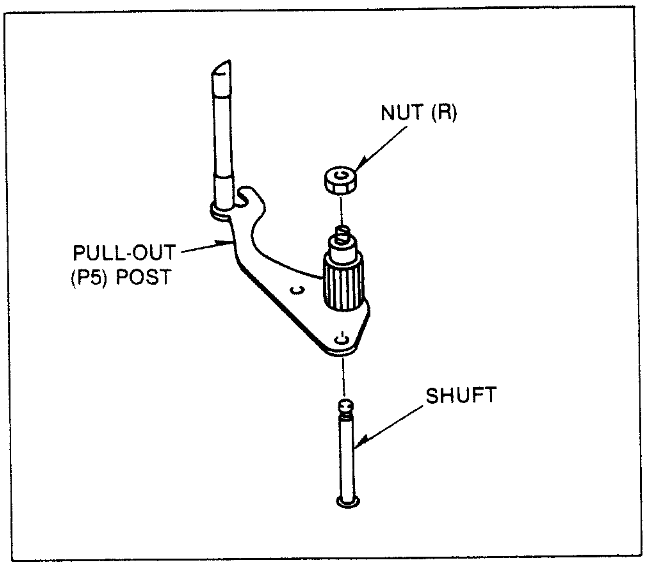
NUT (R)
PULL-OUT (P5) POST
SHUFT

Figure 3-22

3-4-11. CAPSTAN ROTOR AND STATOR MAINTENANCE PROCEDURES

1. Remove the Loading Belt. (Figure 3-23)
2. Remove 4 screws and the Gear Base Unit. (Figure 3-23)

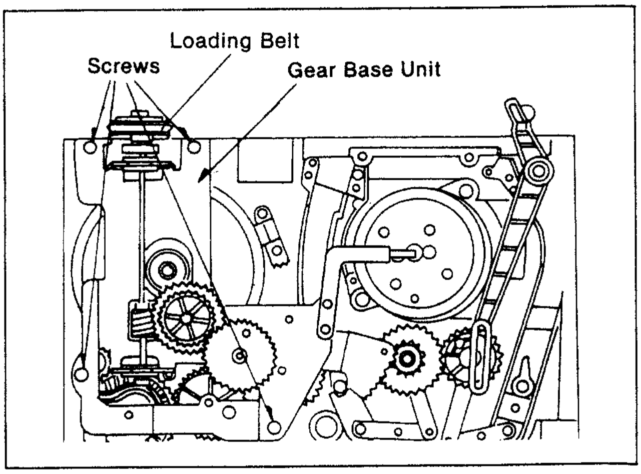
Loading Belt
Screws
Gear Base Unit

Figure 3-23

3. Carefully pull out the Capstan Rotor Unit, taking care so as not to lose the 2 Oil Seals as shown in Figure 3-24.

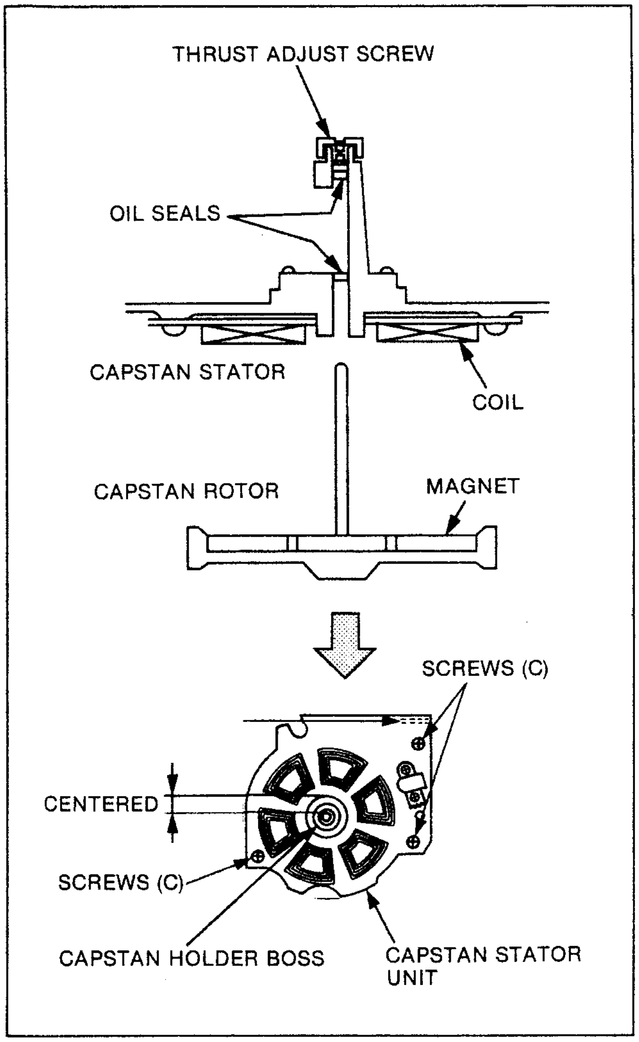

Figure 3-24

4. Disconnect a connector on the Capstan Stator Unit and remove 3 black screws and then lift the Capstan Stator Unit.
5. Replace the new Capstan Stator Unit and then tighten 3 black screws and connect a connector on the Capstan Stator Unit.

<<NOTE>>

When reinstalling the Capstan Stator Unit, the hole in the Capstan Stator Unit must be centered within the hole of chassis.

6. Before replacement of new Capstan Rotor Unit, loosen the Thrust Adjust Screw completely.
7. Replace the new Capstan Rotor, carefully inserting the 2 Oil Seals as shown in Figure 3-24.

<<NOTE>>

1. *Hold the new Capstan Rotor Unit firmly, when replacing it, so the rotor will not be pulled toward the stator too quickly (due to magnetic force).*
   Placing some paper on the coils before rotor installation may prevent accidental damage to the coils if the above caution is not observed.
2. *During replacement, do not touch the Capstan Shaft with any hard material like drivers or tweezers.*

3-4-12. BACK-UP BATTERY REPLACEMENT PROCEDURES

<<NOTE>>

Please refer the Section 2 DISASSEMBLY PROCEDURES of the Service Manual (Page 2-1).
Before removing the Back Up C.B.A. be sure to unplug the Power cable.

1. Remove the Bottom Plate and lift up the Servo C.B.A.
2. Switch the Back Up SW to "OFF" side on the Servo C.B.A.
3. Unscrew 2 screws (U) and remove a connector on the Back Up Sub C.B.A.
4. Re-solder both side of the Battery and replace to the new battery.

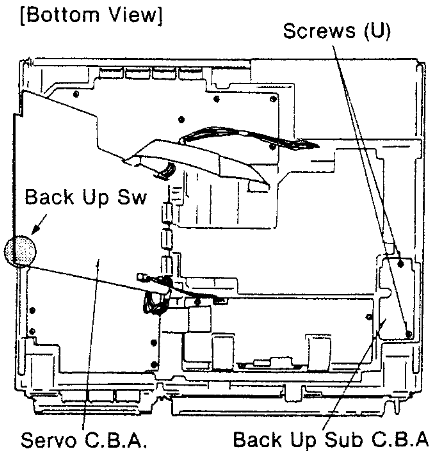

Figure 3-25

3-5. HOUR METER RESET

1. Turn off the power.
2. Connect a jumper wire between TP6002 and TP6003.
3. Turn on the power while pushing the reset button with the hour meter button together.

3-6. INITIAL SETTING

<<NOTE>>

To return set-up items to their original (factory-set) settings.

1. Turn off the power.
2. Turn on the power while pushing the STOP, FF and REW bottons together.

Section 4

MECHANICAL ADJUSTMENTS

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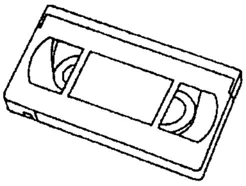
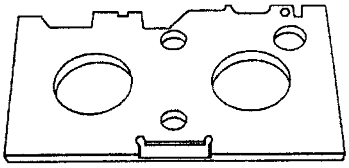
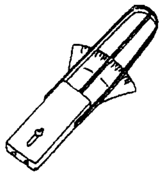
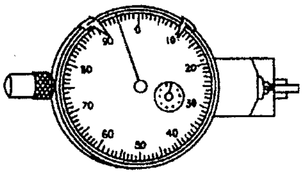
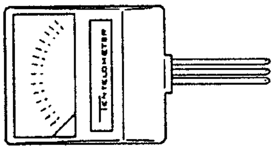
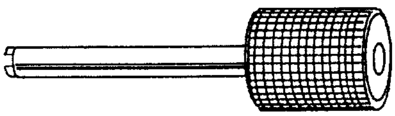
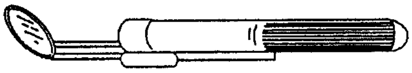
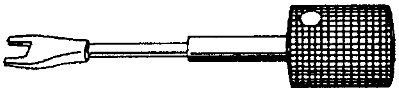
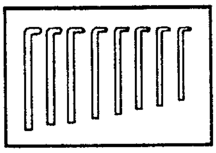
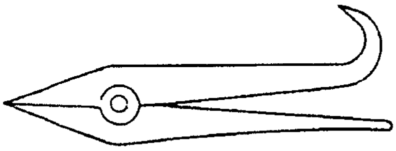
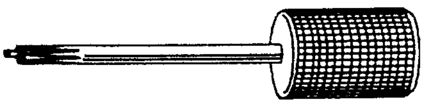
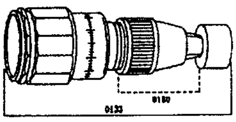
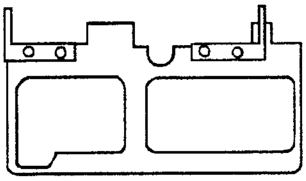
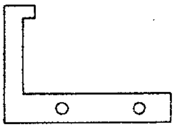
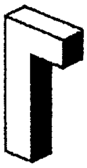
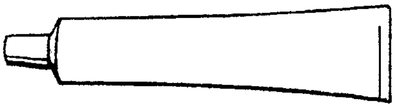
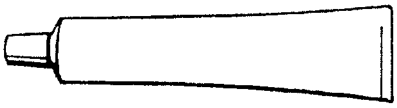
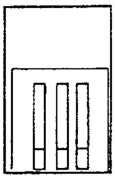
4-1. SERVICING FIXTURES AND TOOLS

The specified servicing fixture must be used to conduct adjustment.
The following fixtures, tools and measuring equipments are required to conduct complete Mechanical Adjustments.

VFM8180HADH ; VHS Alignment Tape 	VFK0191 ; Post Adjustment Plate 	VFK66 ; Fan Type Tension Gauge 
VFK0190 ; Reel Table Height Fixture 	VFK0132 ; Back Tension Meter (Tentelometer, Made in U.S.A.) 	VFK0329 ; Post Adj.Screwdriver 
VFK0343 ; Check Light 	VFK0328 ; H-Position Adj. Screwdriver 	VFK0326 ; Hex. Wrench Set (0.7, 0.9, 1.2, 1.5, 1.6, 2.0, 2.4, 3.0mm) 
VFK0335 ; Retaining Ring Remover 	VFK0269 ; L Type Screwdriver 	VFK0330 ; Fine Adjustment Screwdriver (3mm ϕ) 
VFK0133 ; Dial Torque Gauge VFK0180 ; Plastic Clamper Only VFK0134 ; Adaptor for VFK0133 	VFK0236 ; Tension Post Adj. Plate 	VFK0806 ; Tension Sensor Adj. Fixture 
VFK0344 ; Post Height Adj. Fixture 	High Quality Machine Oil (Reel Shaft, Capstan Saft etc.) <<PURCHASE LOCALLY>>	Cleaning Liquid (Alchol) (Tape Transport Rubber Parts etc.) <<PURCHASE LOCALLY>>
MOR265 ; Morlytone Grease (Black) (for metal part) 	VFK0680 ; S.C.R. Grease (White) (for plastic part) 	VFK27 ; Head Cleaning Stick 

4-2. TAPE INTERCHANGEABILITY ADJUSTMENT PROCEDURES

4-2-1. ADJUSTMENT FLOW CHART

This flow chart describes the order of steps for adjusting the tape guide posts and A/C head in order to gain access to the items needing servicing. (Figures M1 and M2)

AFTER RE-INSTALLING THE UPPER CYLINDER OR LOWER CYLINDER

4-2-6. FINE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHT (P2 AND P3)(LINEARITY)

4-2-9. FINE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE)

AFTER RE-INSTALLING ALL POSTS OR IF ALL POSTS HAVE BEEN TURNED EXTREMELY

4-2-2. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS (P2 AND P3)

4-2-3. ADJUSTMENT OF THE PULL-OUT POST (P5) HEIGHT

4-2-5. TILT AND AZIMUTH ADJUSTMENT OF THE A/C HEAD

4-2-6. FINE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHT (P2 AND P3)(LINEARITY)

4-2-7. FINE ADJUSTMENT OF THE A/C HEAD HEIGHT

AFTER RE-INSTALLING THE A/C HEAD

4-2-7. FINE ADJUSTMENT OF THE A/C HEAD HEIGHT

4-2-5. TILT AND AZIMUTH ADJUSTMENT OF THE A/C HEAD

4-2-7. FINE ADJUSTMENT OF THE A/C HEAD HEIGHT

4-2-8. COARSE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE)

4-2-9. FINE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE)

AFTER RE-INSTALLING THE PULL-OUT (P5) POST

4-2-3. ADJUSTMENT OF THE PULL-OUT POST (P5) HEIGHT

<<NOTE>>

Do not re-adjust any other posts.

Figure M1

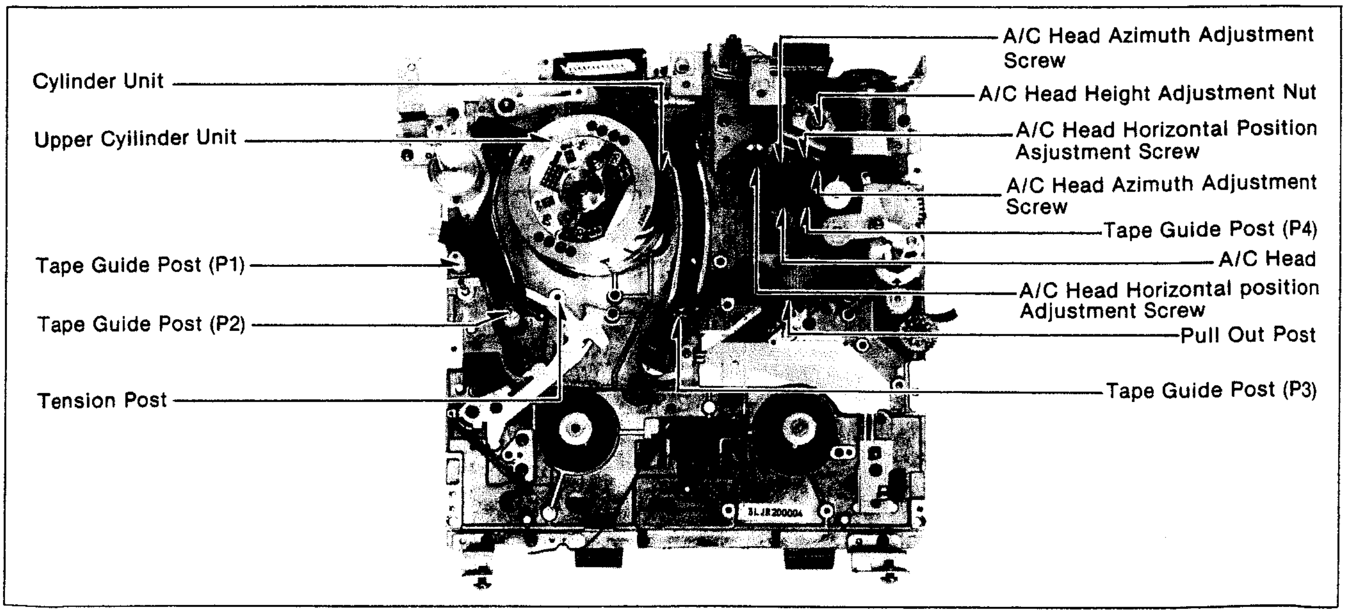

Cylinder Unit
Upper Cyilinder Unit
Tape Guide Post (P1)
Tape Guide Post (P2)
Tension Post
A/C Head Azimuth Adjustment Screw
A/C Head Height Adjustment Nut
A/C Head Horizontal Position Asjustment Screw
A/C Head Azimuth Adjustment Screw
Tape Guide Post (P4)
A/C Head
A/C Head Horizontal position Adjustment Screw
Pull Out Post
Tape Guide Post (P3)

Figure M2

4-2-2. COARSE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHTS (P2 and P3)

<<NOTE>>

The Tape Guide Posts have been precisely adjusted at the factory. Therefore, normally do not change the height of the P2 and P3 Posts.
The following adjustment is required only when replacing the posts.
To prevent the alignment tape from being damaged, use a normal cassette tape for this procedure.

<<TOOL>>

Post Adjustment Plate ; VFK0191
Reel Table Height Gauge ; VFK0190
Post Adjustment Screwdriver ; VFK0329
Check Light ; VFK0343
L Type Screwdriver ; VFK0326

1. Remove the cassette compartment. (Refer to Disassembly Procedures)
2. Place the Post Adjustment Plate over the reel tables. Confirm that the Post Adjustment Plate is firmly seated as shown in Figure M3.

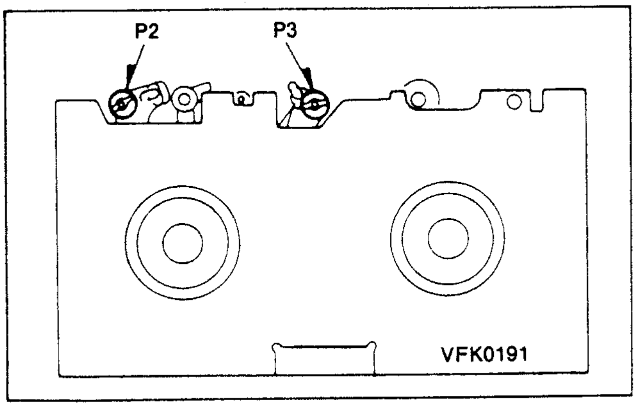


Figure M3

3. Lower 2 tape guide posts (P2 and P3) by turning the Post Adjustment screwdriver so that the condition of post becomes as shown in Figure M4. That is the lower edge of Tape guide should be lower than surface of Adjustment Plate.

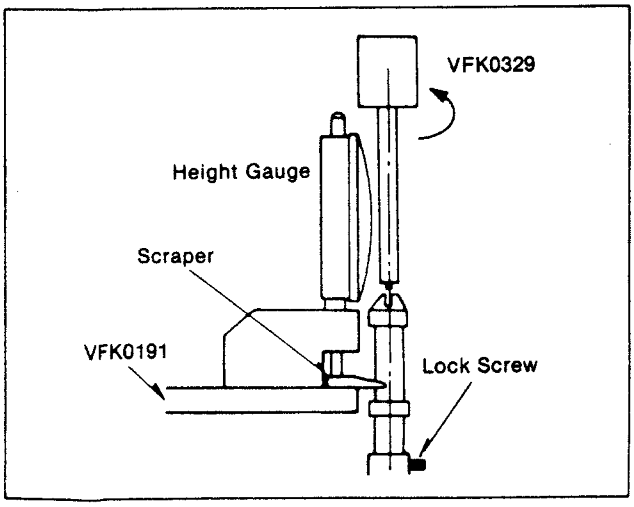


Figure M4

<<NOTE>>

Before turning P2 and P3 posts, slightly loosen the Lock Screw using the L Type Screwdriver.

4. Place the scraper of Reel Table Height Gauge as shown in Figure M5.
   Set the gauge to zero, then raise the post slowly until the lower tape guide just touches the bottom of the scraper. Use the gauge to determine the exact point at which the lower tape guide touches the scraper.

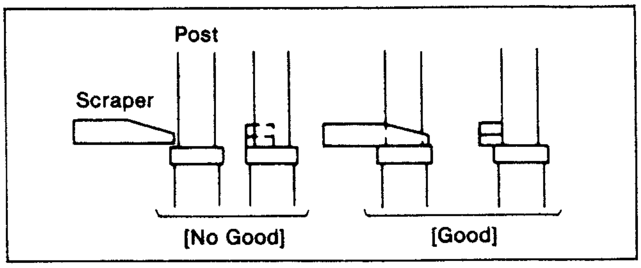


Figure M5

5. After the adjustment, install the cassette compartment referring to Reinstallation of cassette compartment.
6. Play back the beginning portion of NV-E240 cassette tape, and confirm that tape travel as shown in Figure M6.

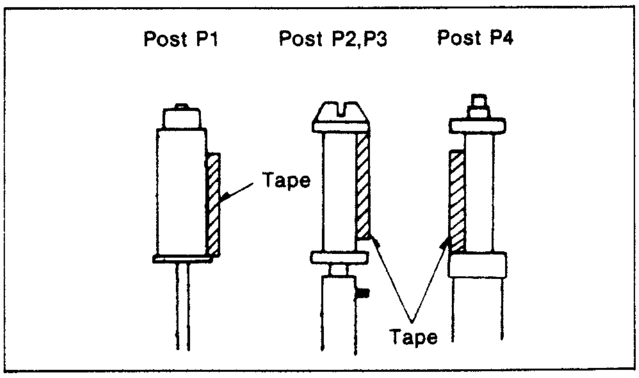


Figure M6

7. Make sure that the edges of the tape are not curling or waving at the bottom or top end of the posts P2, P3 by using the Check Light.
8. If there are waving or frilling at the lower or upper edge of the P2 and P3 posts, readjust the heights of P2 and P3 Posts correctly as shown in Figure M7.

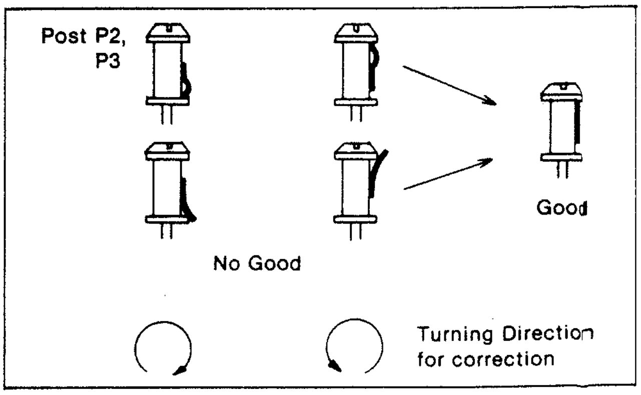


Figure M7

9. And confirm that the tape runs along the Cylinder Lead Correctly.

4-2-3. ADJUSTMENT OF THE PULL-OUT POST (P5) HEIGHT

<<TOOL>>
Post Adjustment Plate ; VFK0191
Reel Table Height Gauge ; VFK0190
Nut Driver ; Purchase locally

<<SPEC>>
- 0.03mm +/- 0.01mm

<<NOTE>>
Unless the replacement or adjustment this post is required, the adjustment nut should not be turned.

1. Remove the cassette compartment. (Refer to Disassembly procedures)
2. Place the Post Adjustment Plate over the reel tables.
3. Turn the Worm Shaft counterclockwise (loading direction) until the mechanical condition becomes as shown in Figure M8.

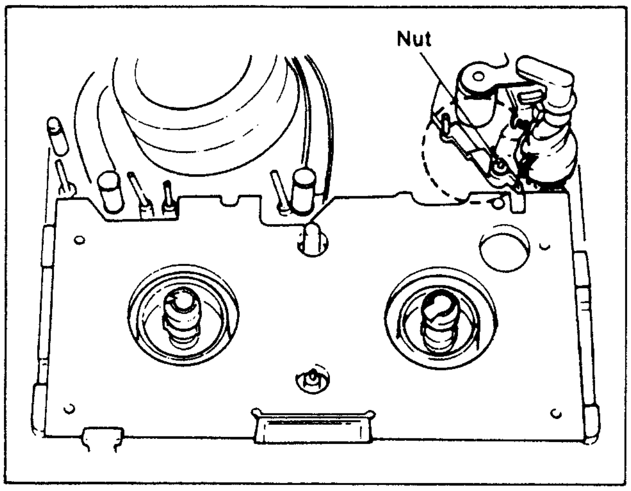


Figure M8

4. Place the Reel Table Height Gauge on the Post Adjustment Plate and set the gauge to zero "0" as shown in Figure M9.

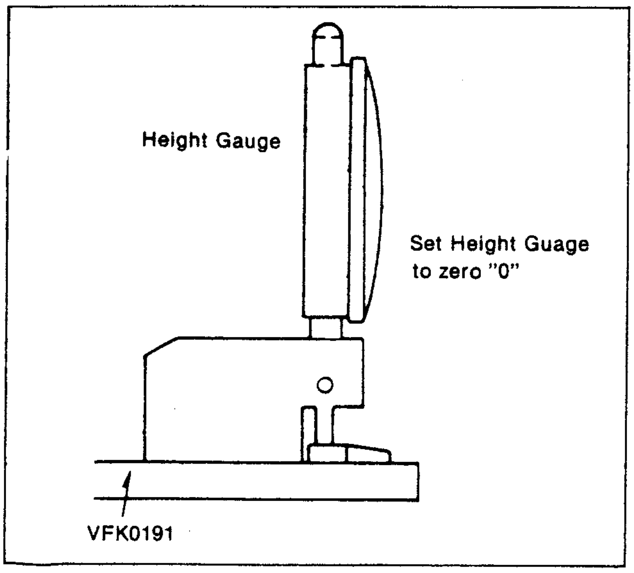


Figure M9

5. Place the Reel Table Height Gauge as shown in Figure M10 and turn the nut slowly until the gauge reads -0.03 mm +/- 0.01mm.

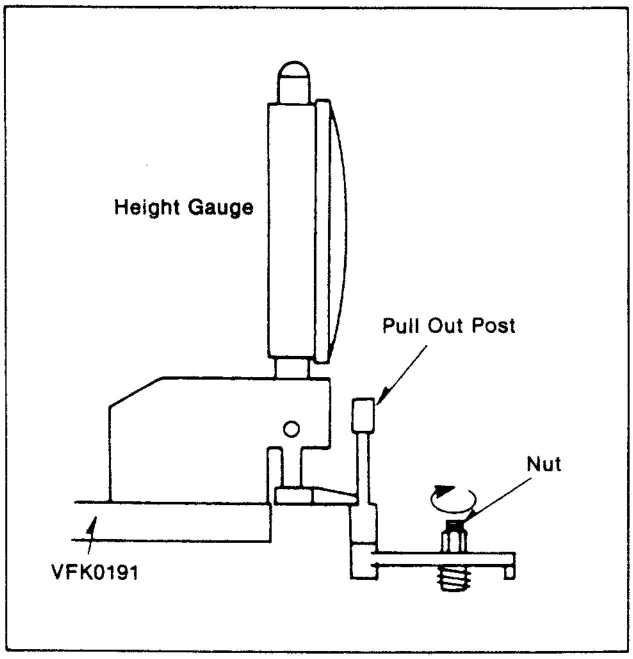


Figure M10

6. After the adjustment, install the cassette compartment. (Refer to Reinstallation of Cassette Compartment).
7. Play back a normal cassette tape on Review Search mode, and make sure that the edges of the tape are not curling or waving at the bottom end of the P4 post by using the Check Light as shown in Figure M11.

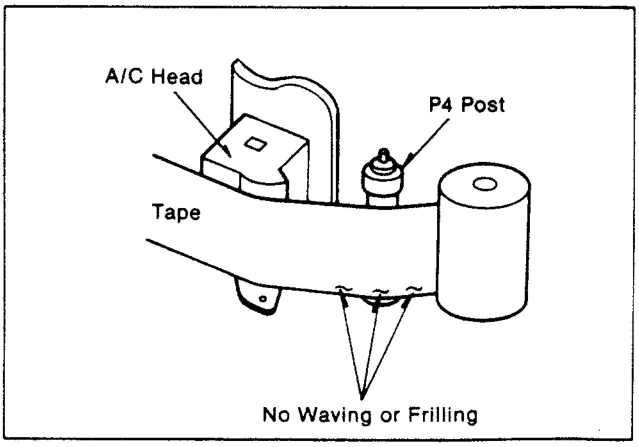


Figure M11

<<NOTE>>
There is easy method to check Waving or Frilling. If there is Waving or Frilling in the lower edge, the white black pattern which is reflected on the tape will curve or not linear as shown in Figure M12.

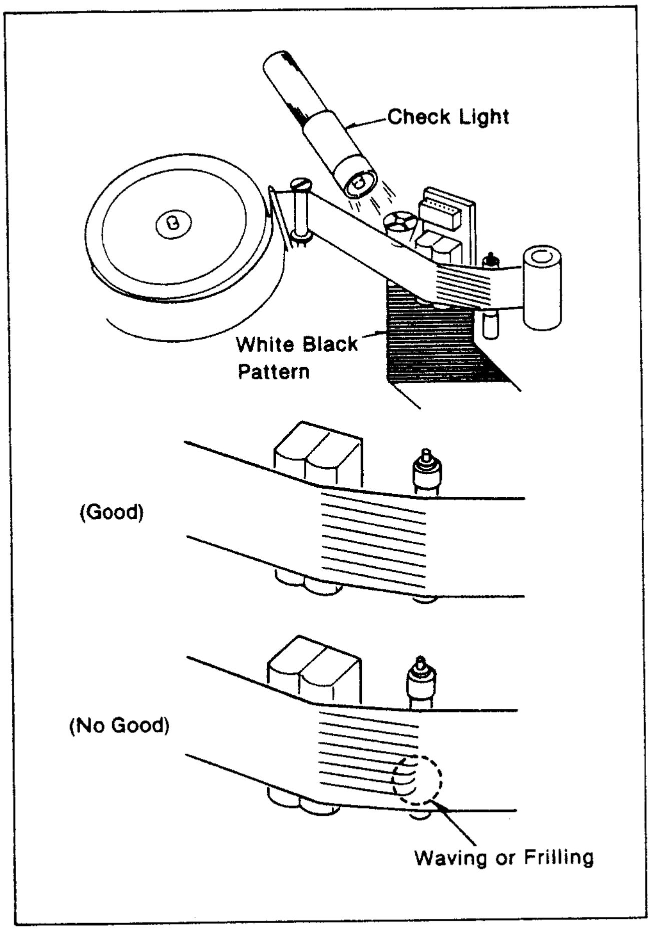

Check Light
White Black Pattern
(Good)
(No Good)
Waving or Frilling

Figure M12

8. If curling appears, readjust P5 post.

4-2-4. COARSE ADJUSTMENT OF THE A/C HEAD HEIGHT

<<NOTE>>
This procedure should be performed only when the A/C Head is replaced.

<<TOOL>>
Check Light ; VFK0343
Nut Driver ; Purchase locally

1. With the tape running, look at the lower edge of the control head by using the check light.
2. Adjust the Nut (A) as shown in Figure M13 by turning the Nut (A) clockwise to lower the head, and counter-clockwise to raise it.

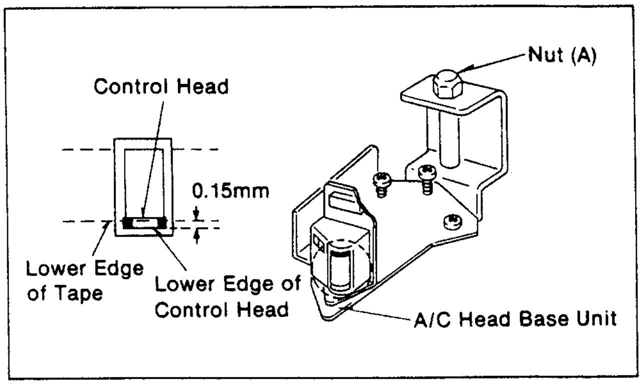

Control Head
Nut (A)
0.15mm
Lower Edge of Tape
Lower Edge of Control Head
A/C Head Base Unit

Figure M13

4-2-5. TILT & AZIMUTH ADJUSTMENT OF THE A/C HEAD

<<NOTE>>
This procedure should be performed only when the A/C Head is replaced or posts heights are readjusted.

<<TOOL>>
Alignment Tape ; VFM8180HADH
Check Light ; VFK0343
Screwdriver(+) ; Purchase locally
VHS Video Tape

1. Play back a VHS Video tape which the amount of tape winding of a Supply Reel is more than the amount of tape winding of a Take up Reel. Turn a screw (B) to clockwise until Waving or Frilling appears in the lower edge of P4 post as Figure M11.

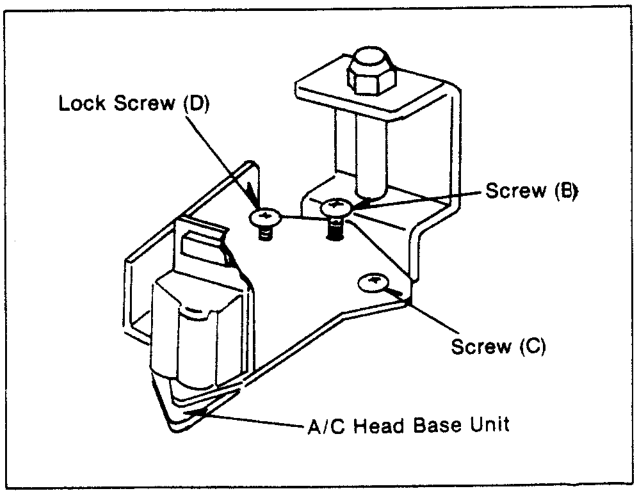

Lock Screw (D)
Screw (B)
Screw (C)
A/C Head Base Unit

Figure M14

<<NOTE>>
There is easy method to check Waving or Frilling. If there is Waving or Frilling in the lower edge, White Black pattern which is reflected on the tape will curve or not linear. (Figure M12)

2. Turn the screw (B) to counter-clockwise until waving or frilling do not appear in the lower edge of P4 post.
3. Connect the scope to Audio Output on the rear panel.
4. Play back the 2-nd portion (Normal Audio 6KHz) of the alignment tape (VFM8180HADH).
5. Adjust the screw (B) and (C) so that the output level becomes maximum as shown in Figure M15.

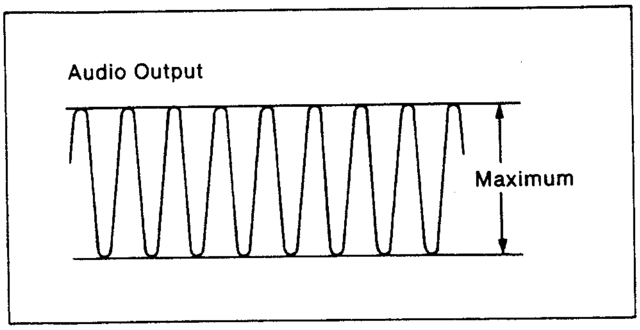


Figure M15

6. Confirm that the tape runs around lower limiter of P4 post by using the check light.
7. If there is waving or frilling in the lower edge (Figure M13), then repeat step 3 to 5.

4-2-6. FINE ADJUSTMENT OF THE TAPE GUIDE POST HEIGHT (P2 and P3) (LINEARITY)

<<TOOL>>
Alignment Tape ; VFM8180HADH
Post Adjustment Screwdriver ; VFK0329

<<NOTE>>
Before playing back the alignment tape playback a normal cassette tape and confirm correct transport.

1. Connect a scope to TP3004 on the Video (1) C.B.A. and TP8004 on the Video (2) C.B.A. to Ext-Trigger the scope.
2. Play back the 2-nd portion (Monoscope 2) of the alignment tape (VFM8180HADH).
3. Press the Tracking Control button ("+" or "-") and adjust for maximum VIDEO FM envelope.
4. If the RF envelope appears like example "A" or "B" in Figure M17 then adjustment of the tape guide post (P2 : Entrance) is necessary.
5. Adjust the tape guide post (P2) with the post adjustment screwdriver so that the RF envelope waveform at the entrance portion becomes flat as shown in Figure M17-"C".

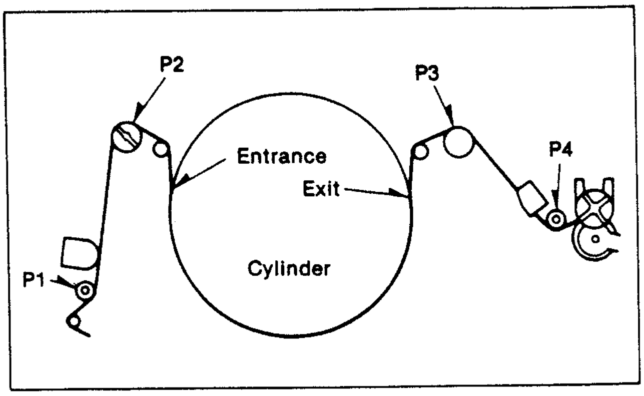


Figure M16

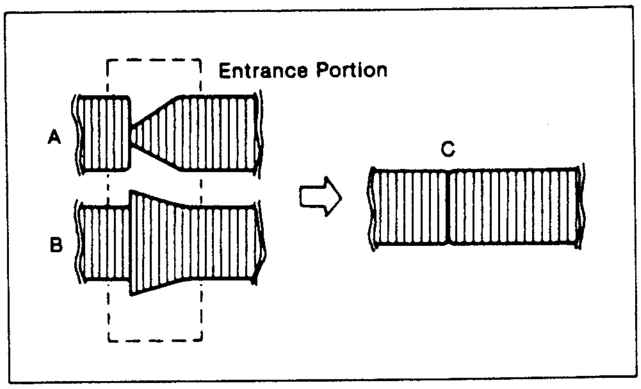


Figure M17

6. If the RF envelope appears like example "D" or "E" in Figure M18, then adjustment of the tape guide post (P3 : Exit) is necessary.
7. Adjust the tape guide post (P3) in the same manner as the P2 post so that the exit portion becomes flat as shown in Figure M18-F.

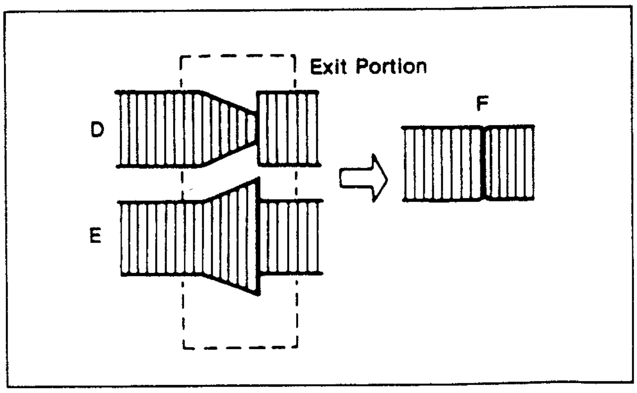


Figure M18

8. Turn the Tracking VR fully clockwise and counterclockwise. The output envelope should vary nearly parallel with other condition as shown in Figure M19.

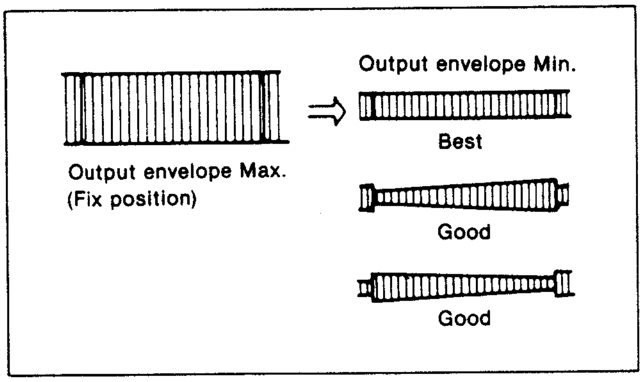

Output envelope Min.
Best
Output envelope Max.
(Fix position)
Good
Good

Figure M19

9. Turn the Tracking VR into center fix position and adjust for maximum RF envelope.
If the RF envelope does not meet these specifications,

V1/VO >= 0.7
V2/VO >= 0.8
V3/VO >= 0.7

then repeat steps 4-9 again.

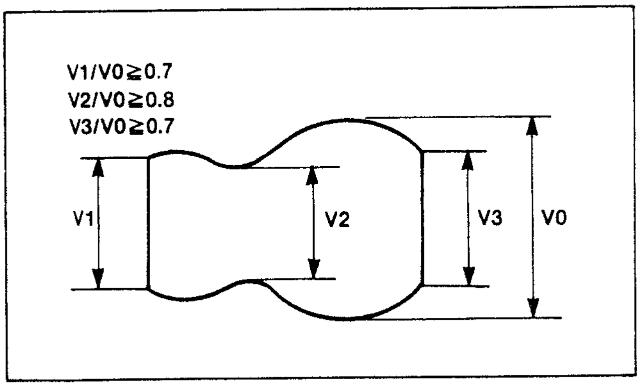

V1/V0≧0.7
V2/V0≧0.8
V3/V0≧0.7
V1
V2
V3
V0

Figure M20

4-2-7. FINE ADJUSTMENT OF A/C HEAD HEIGHT

<<NOTE>>

Before this adjustment 5-2-3. Coarse Adjustment of the A/C Head Height should be performed.

<<TOOL>>

Alignment Tape ; VFM8180HADH
Nut Driver ; Purchase locally

1. Connect a scope to Audio Output on the rear panel.
2. Play back the 2-nd portion (Normal Audio 6kHz) of the Alignment Tape (VFM8180HADH).
3. Adjust the Nut (A)(Figure M21) so that the Audio output level becomes maximum as shown in Figure M22.

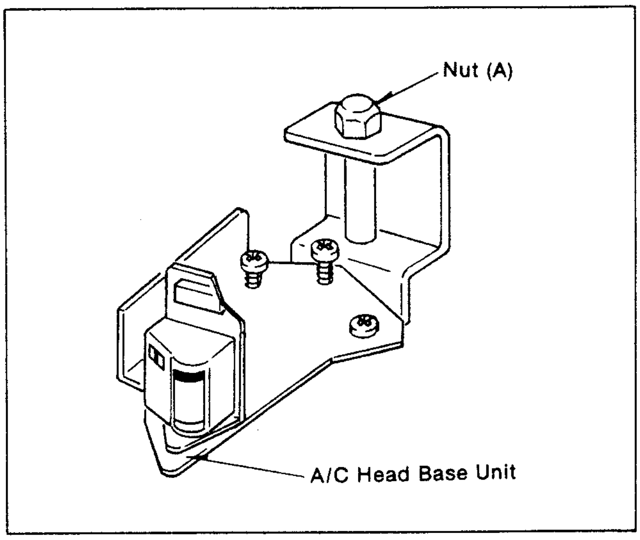

Nut (A)
A/C Head Base Unit

Figure M21

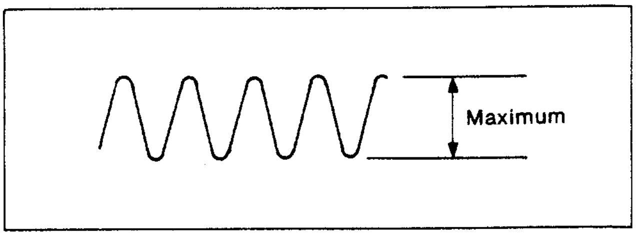


Figure M22

4-2-8. COARSE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE)

<<NOTE>>
This procedure should be performed only when the A/C head is replaced, and after performing the tape interchangeability adjustment.

<<TOOL>>
H-Position Adjustment Screwdriver ; VFK0328
Alignment Tape ; VFM8180HADH

1. Connect a scope CH1 to TP3004 on the Video (1) C.B.A. and a scope CH2 to Audio Output on the rear panel.
2. Connect a jumper wire between TP6002 and TP6003 on the System Control C.B.A.
3. Play back the 1-st position (Monoscope 1 and Audio / Every 10-th field is skipped) of the Alignment tape VFM8180HADH.
4. Press both of the Tracking Control buttons ("+" and "-") together on the Front Panel.
5. Adjust the A/C head horizontal position screw so that the phase of audio drop out and video RF envelope drop-out becomes the same as shown in Figure M23.

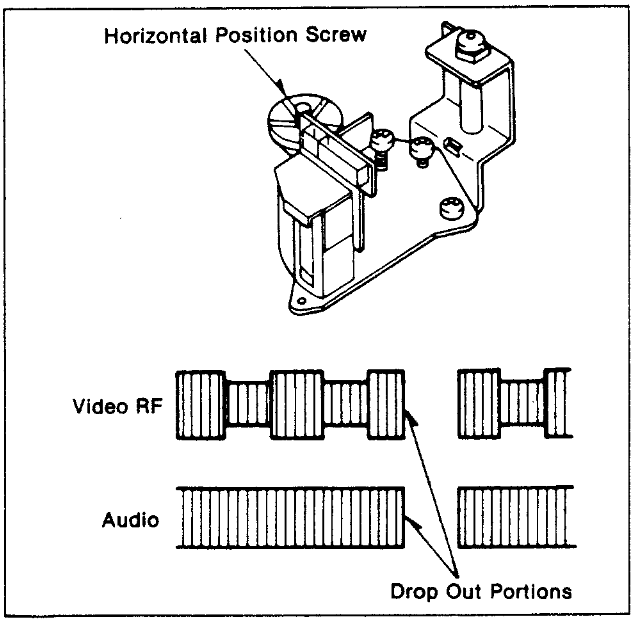


Figure M23 Horizontal Position Adjustment of A/C Head

<<NOTE>>
After completion the fine adjustment of the A/C head horizontal position, the phase of Audio drop-out and Video RF envelope drop-out may be changed slightly.

4-2-9. FINE ADJUSTMENT OF THE A/C HEAD HORIZONTAL POSITION (X-VALUE)

<<NOTE>>
This procedure should be performed only when the A/C head is replaced, and after performing the tape interchangeability adjustment.

<<TOOL>>
H-Position Adjustment Screwdriver ; VFK0328
Alignment Tape ; VFM8180HADH

1. Connect a scope to TP3004 on the Video (1) C.B.A. and TP8004 on the Video (2) C.B.A. to Ext-Trigger the scope.
2. Connect a Jumper wire between TP6002 and TP6003 on the System Control C.B.A.
3. Play back the 2-nd portion (Monoscope 2) of the alignment tape (VFM8180HADH).
4. Press both of the Tracking Control buttons ("+" and "-") together on the Front Panel.
5. Adjust the Horizontal Position Screw (Figure M22) of A/C head so that the RF signal becomes maximum level as shown in Figure M24.

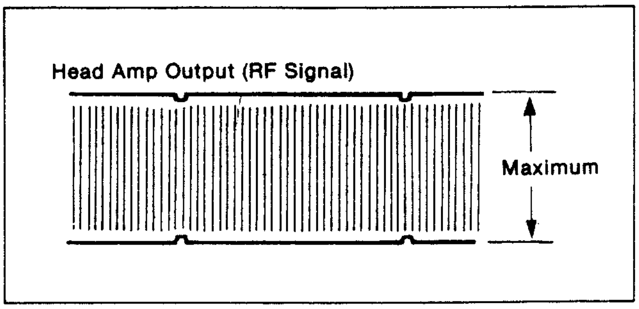


Figure M24

4-3. OTHER MECHANICAL ADJUSTMENT PROCEDURES

4-3-1. MEASUREMENT AND ADJUSTMENT OF BACK TENSION

<<TOOL>>
Back Tension Meter ; VFK0132
VHS Cassette Tape (180 min. tape except S-VHS tape)

A. FWD Tension Adjustment

<<SPEC>>
23g to 27g

1. Play back the cassette tape from the beginning and wait until the tape movement get the stabilization. (for approx. 10 to 20 seconds)
2. Pull the Impedance Roller in the direction indicated the arrow in Figure M25 secure it with a piece of adhesive tape.
3. Insert the Back Tension Meter into the path of a tape, and measure the back tension.

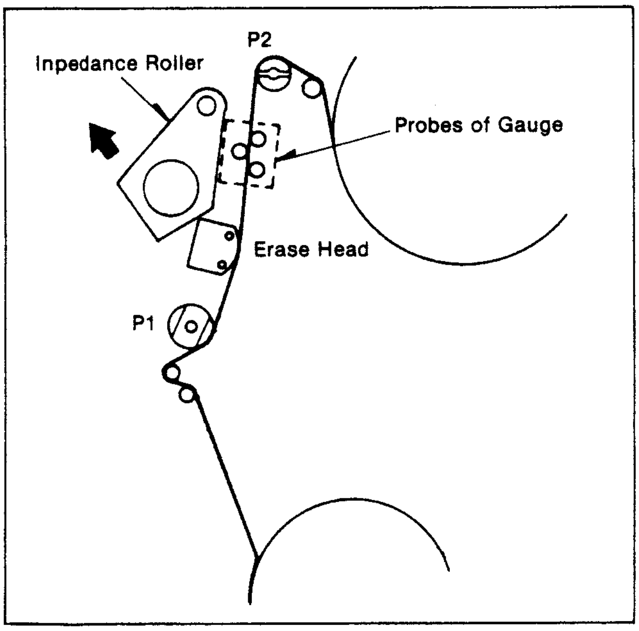


Figure M25 Measurement of Back Tension

4. If it is out of specification, replace the Tension spring.

B. Rev Tension Adjustment

<<SPEC>>
30g to 60g

1. Play back the cassette tape on 3H Reverse Play mode from the beginning and wait until the tape movement get the stabilization. (for approx. 10 to 20 seconds)
2. Pull the Impedance Roller in the direction indicated by the arrow in Figure M25 secure it with a piece of adhesive tape.
3. Insert the Back Tension Meter into the path of a tape, and measure the back tension.
4. If it is out of specification, replace the Tension spring.

<<NOTE>>
While measuring, make sure that the three probes of the meter are all in good contact with the tape.
As the tension meter is very sensitive, we recommend taking 3 separate readings.

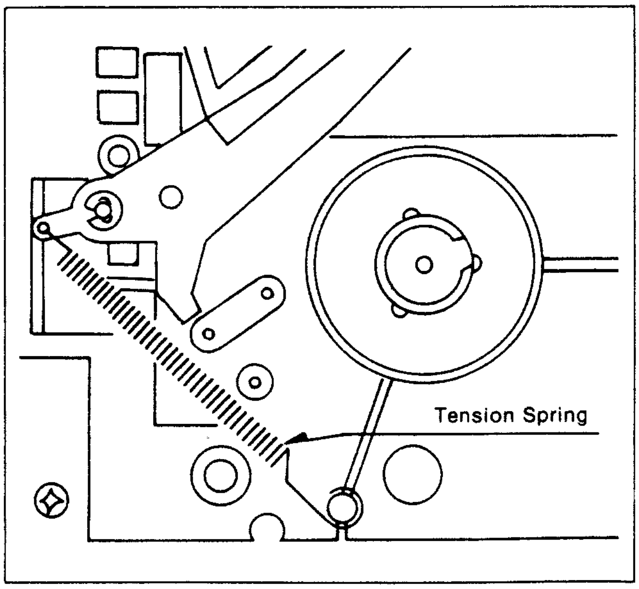


Figure M26

4-3-2. HEIGHT ADJUSTMENT OF THE REEL TABLES

<<TOOL>>
Post Adjustment Plate ; VFK0191
Reel Table Height Gauge ; VFK0190

<<SPEC>>
0 - 0.15mm

1. Remove the cassette compartment.
2. Place the Post Adjustment Plate on the reel tables.
3. Place the Reel Table Height Gauge on the plate so that the scraper of the gauge touches the cut-out portion of the plate, then set the gauge to zero "0" as shown in Figure M27.

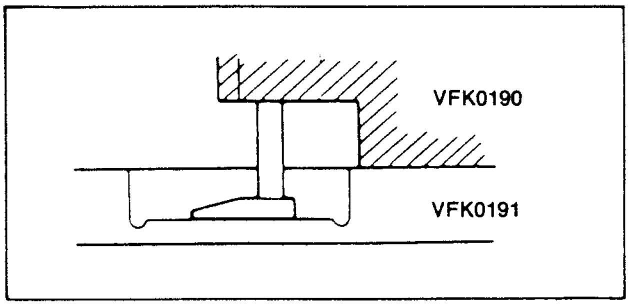


Figure M27

4. Measure the height of the top surface of either Reel Table and note the difference in height from the plate cut-out. (Figure M27 and M28) Repeat this procedures for the other Reel Table.

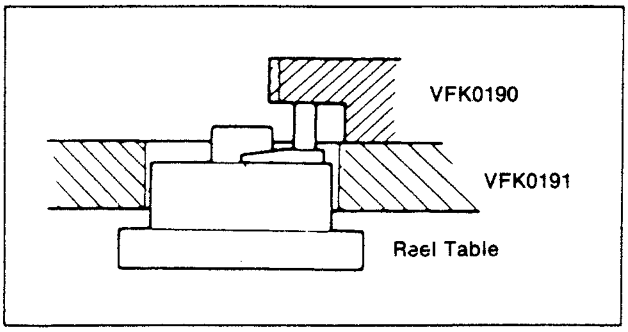


Figure M28

5. If the difference of Supply Reel table is more than 0.15mm higher or lower, replace the Supply Reel table. When the difference of Take Up Reel table is more than 0.15mm higher or lower, adjust nut (A)(Figure M29) so that measurement becomes the spec. If you can not adjust to the spec., replace Take Up Reel table.

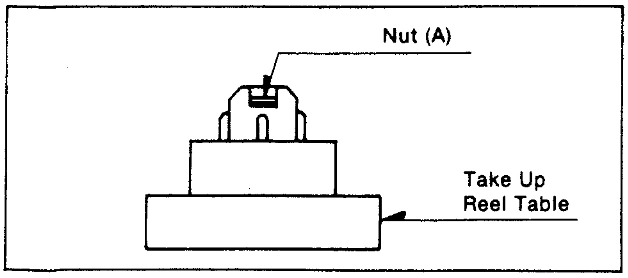


Figure M29

<<NOTE>>
When replacing the tables, the DD Reel Unit needs to be removed from the chassis.
Remove 6 screws and carefully lift it out as shown in Figure M30.

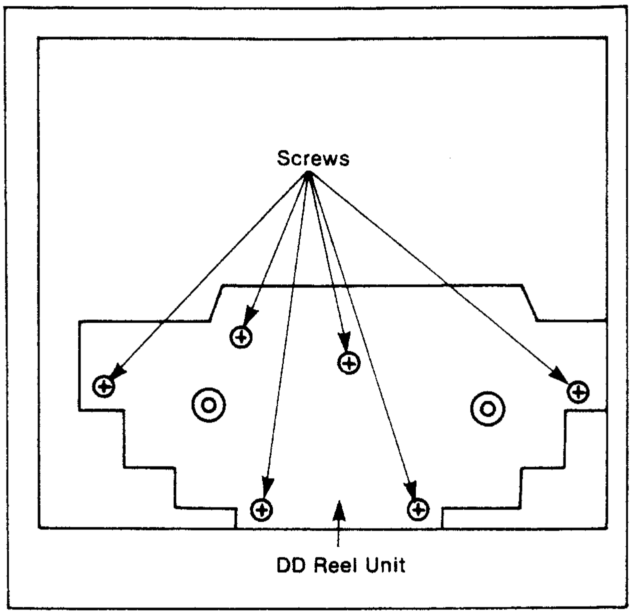


Figure M30 Bottom View of DD Reel Unit

<<NOTE>>
When assembling the DD Reel Unit, slide a Main Rod to far left side by rotating the Center Gear, and then screw the 6 screws.

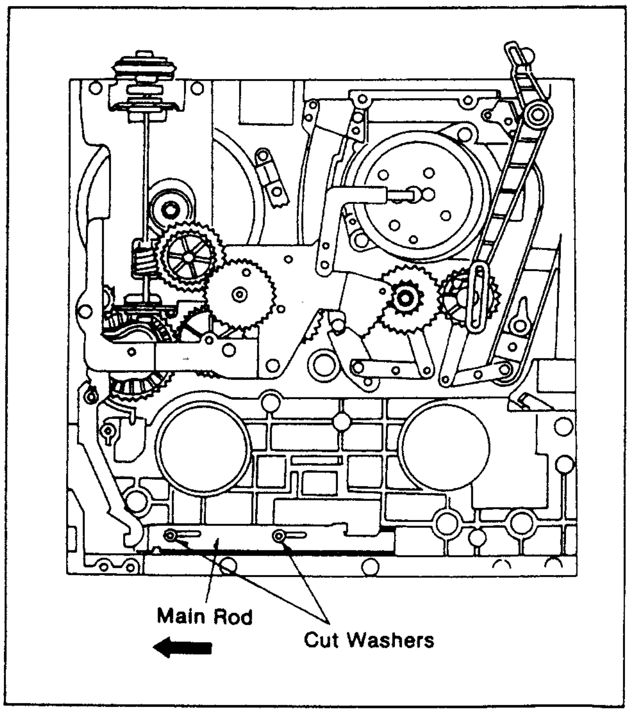


Figure M31

4-3-3. ADJUSTMENT OF THE CAPSTAN THRUST GAP

<<SPEC>>
0.5mm +/- 0.05mm

1. Tighten the Thrust Adjust Screw slowly until the Capstan Rotor starts turning.

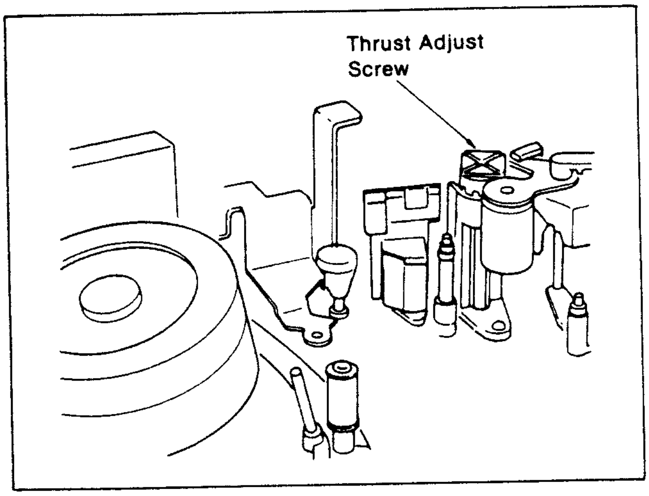


Figure M32

2. At the point where the Capstan Rotor starts turning, tighten the Thrust Adjust Screw another 180 degree clockwise as shown in Figure M33.

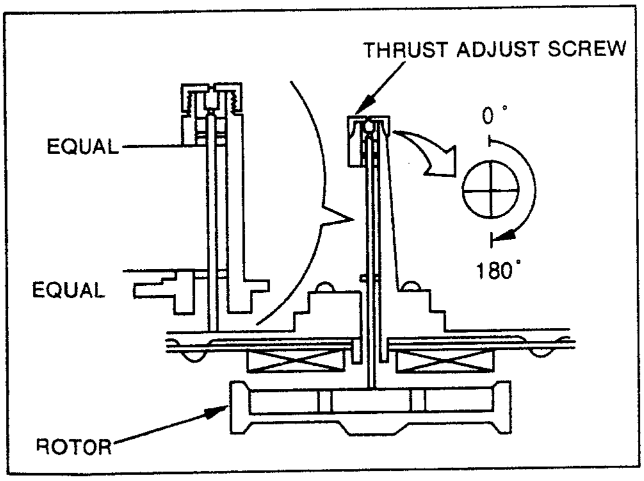


Figure M33

3. Upon completion of above procedures, confirm that these 2 Oil Seals are positioned as shown in Figure M33. And then, wipe off the Capstan Shaft to remove oil, grease and dust.

4-3-4. MEASUREMENT AND ADJUSTMENT OF THE BRAKE TORQUE

<<TOOL>>
Torque Gauge ; VFK0133
Adapter for Gauge ; VFK0134

1. Remove the top cover and the cassette compartment.
2. Attach the adapter to the torque gauge and place the deck in STOP mode (Subloading mode).
3. Place the torque gauge on the reel table as shown in Figure M35. The weight of the gauge should not rest on the reel table.
4. Turn the torque gauge in the direction indicated in Figure M36 until the brake begins slipping and read the gauge.

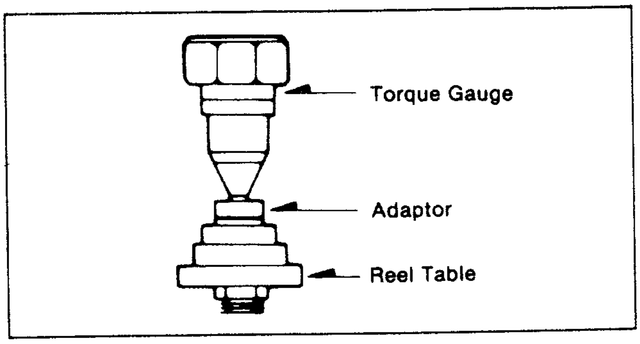
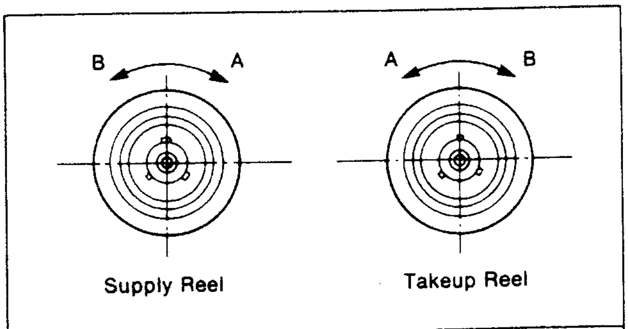


Figure M35 Measuring Method



	A	B
Takeup	more than 550g-cm	more than 50g-om
Supply		more than 40g-cm

Figure M36 Specification of Brake Torque

5. If it is out of specification, replace the Brake Spring.

<<NOTE>>
If the proper brake torque cannot be obtained by replacing the Brake Spring, clean the braking surface of the reel table with a soft cloth and re-measure the brake torque. If it's still out of specification, replace the Main Brake (S) or (T) Unit.

4-3-5. ADJUSTMENT OF PRESSING FORCE OF PRESSURE ROLLER UNIT

<<TOOL>>
Fan Type Tension Gauge ; VFK66
VHS 180 min. Cassette Tape

<<SPEC>>
1,050g +/- 230g

1. Remove the Cassette Compartment.
2. Play back the end portion of VHS (180 min.) tape.
3. Set Fan Type Tension Gauge to the part (A) of Pinch Roller Unit (Figure M37).
4. Press the Arm with the Gauge, in the direction indicated by the arrow as show in Figure M37.
5. Confirm the reading of the Tension Gauge is 1,050g +/- 230g at the moment of the tape stop.
6. If it is out of spec, replace the Pinch Pressure Spring.
7. Place the deck in normal P.B. and Rev mode.
8. Confirm the reading of the clearance (T) is more than 0.5mm. (Figure M38).
9. If it is out of spec, replace the Pressure Roller Unit.

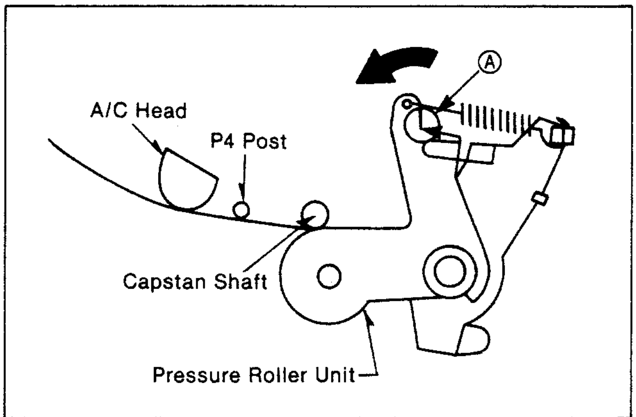

Ⓐ
A/C Head
P4 Post
Capstan Shaft
Pressure Roller Unit

Figure M37

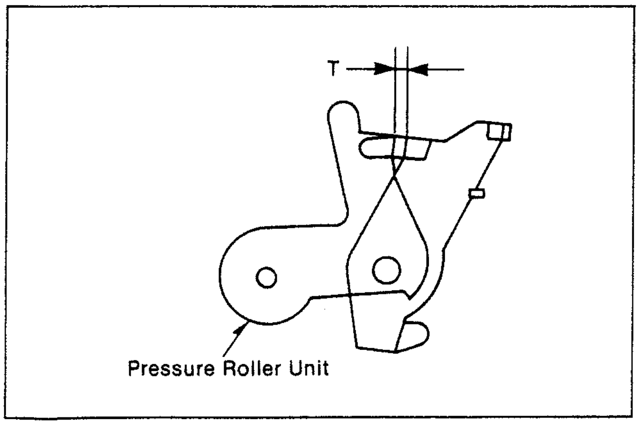

T
Pressure Roller Unit

Figure M38

4-3-6. ADJUSTMENT OF REV TENSION SENSOR POSITION

<<TOOL>>
Tension Sensor Adj. Fixture ; VFK0806
Tension Post Adj. Plate ; VFK0236
Fine Adj. Screwdriver ; VFK0330
Digital Volt Meter ; Purchase locally

<<NOTE>>
Assemble a Tension Sensor Adjustment Fixture (VFK0806) and a Tension Post Adj Plate (VFK0236) as shown in Figure M39.

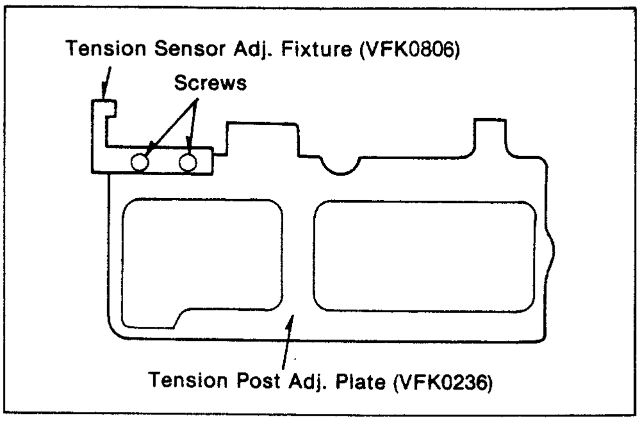

Tension Sensor Adj. Fixture (VFK0806)
Screws
Tension Post Adj. Plate (VFK0236)

Figure M39

1. Remove the Top Plate and Cassette Holder Unit. (refer to Disassemble Procedures)
2. Disconnect the 4-pin and 2-pin flat wire from the connector P1508.
3. Connct two wires of 4-pin flat wire to the pin 3 and 4 of the connector P1508 as shown in Figure M40.

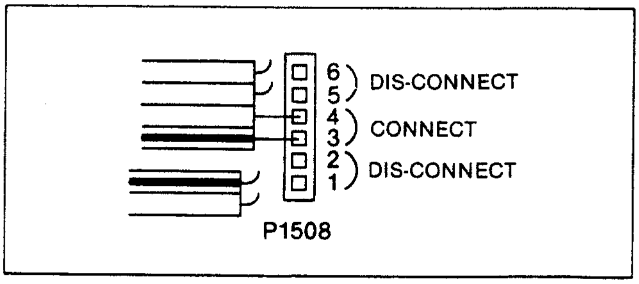

6
5
DIS-CONNECT
4
3
CONNECT
2
1
DIS-CONNECT
P1508

Figure M40

4. Push the Sub Wiper Arm (R) to direction of Cassette loading.
   Then the Sub Wiper Arm (R) goes down itsedlf and mode of machine change to STOP.
5. Turn the Power switch off.
6. Remove the Cassette Compartment (refer to Disassmbly Procedures) and disconnect 4Pin flat wire form P1508.
7. Connect the V.T.V.M. or D.V.M. to TP2501 on the Reel Servo C.B.A.

8. Place the Tension Post Position Adjustment Plate with the Fixture over the reel tables as shown in Figure M41.

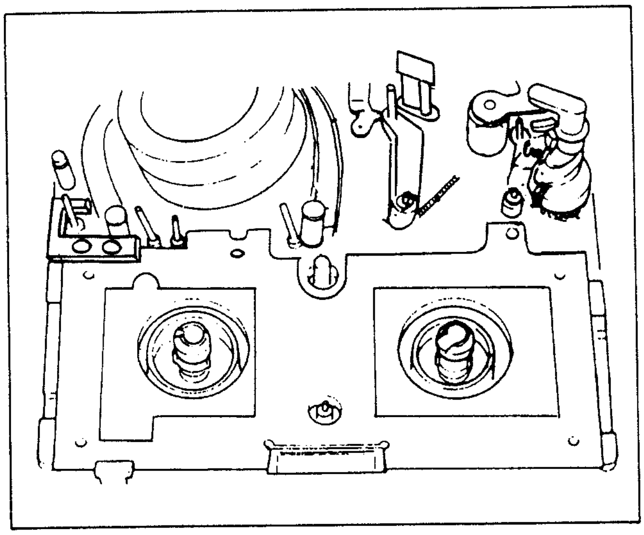


Figure M41

9. Turn the Power switch on.
10. Set the Time Mode to 480H.
11. Slightly loosen 2 screws (C). Insert a Fine Adj. Screwdriver in the hold (D). (Figure M42)

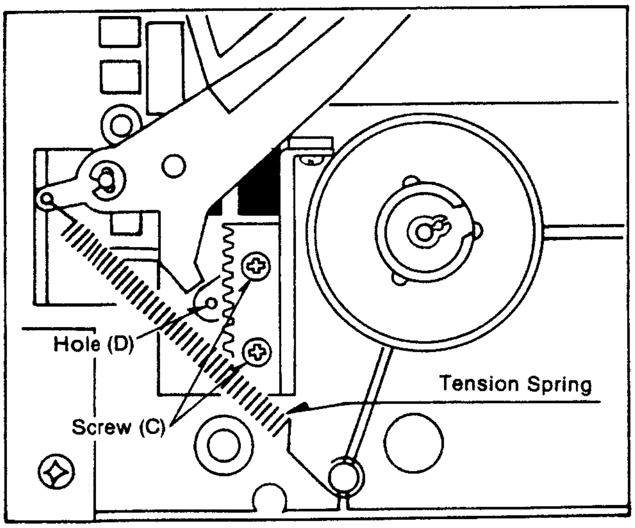


Figure M42

12. Press the PLAY button.
13. Adjust the Rev Sensor Position so that measurement becomes D.C. 2.0V to 2.5V.
14. Tighten the 2 screws (C).
15. Remove the Tension Sensor Fixture.
16. Reinstall the Cassette Compartment.
17. Confirm Playback picture (Rev Playback mode, Playback mode etc.)

4-3-7. ADJUSTMENT OF FG HEAD GAP

<<SPEC>>
0.17mm to 0.18mm

1. Slightly loosen 2 screws. (Figure M43)
2. Put the paper which is used for cover page of this volume into the gap between F.G. Head and Capstan rotor. (The thickness of the cover page is approx. 0.17mm).
3. After adjustment, tighten 2 screws.

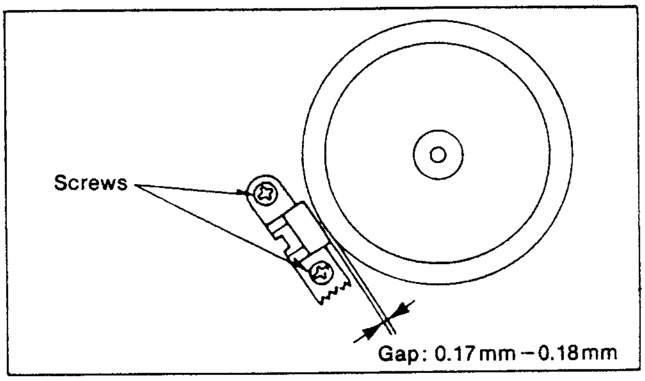


Figure M43

<<NOTE>>
Do not touch the surface of rotor and keep any magnetizable material away.

4-4. ASSEMBLY AND ADJUSTMENT PROCEDURES OF MECHANISM

The mechanism of this model is mostly engaged to the System Control Circuit, through the mode select switch.
Therefore the relation between the mode select switch and the cam gear decides all further mechanical movement of the mechanical parts such as levers, gears, rollers and so on.
If these parts are not fixed properly, the unit will be unloaded or compulsorily stopped.
And it will result being damaged at any mechanical or electrical parts.
The overall mechanical condition (alignment) of bottom and top view are shown in Figure M44 and Figure M45. This mechanical adjustment is performed in the STOP mode.

4-4-1. CONFIRMATION OF ALIGNMENT CONDITION

1. Remove the Loading Belt.
2. Unscrew 4 screws and remove the Gear Base Unit.(Figure M44)
3. Turn the Center Gear to counter-clockwise until 2 big holes of Center Gear align with 2 big holes of Retainer Gear and Ring Gear and Chassis as shown in Figure M46.
4. Identification hole on the Mode Select Switch at 6 oclock position and aligned with small hole on Pinch Cam as shown in Figure M45.
5. P5 Arm is completely loading position and the Inclined Base (S) and (T) are completely unloading position.

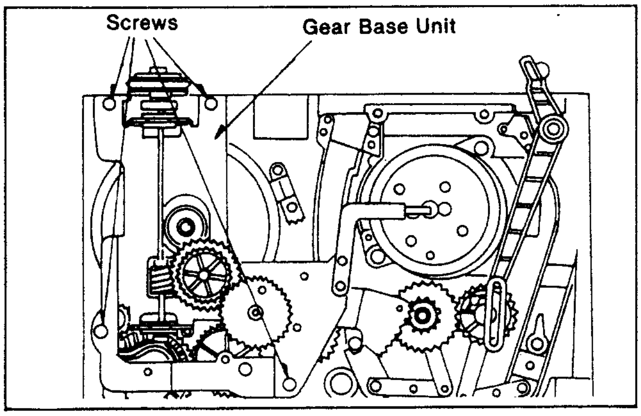

Screws
Gear Base Unit

Figure M44

6. Small hole on Sub Cam Gear should align with small hole on the Connection Gear and rectangular mark on the Connection Gear should be at a 3 oclock position.
7. Pressure Roller Unit is UP position.

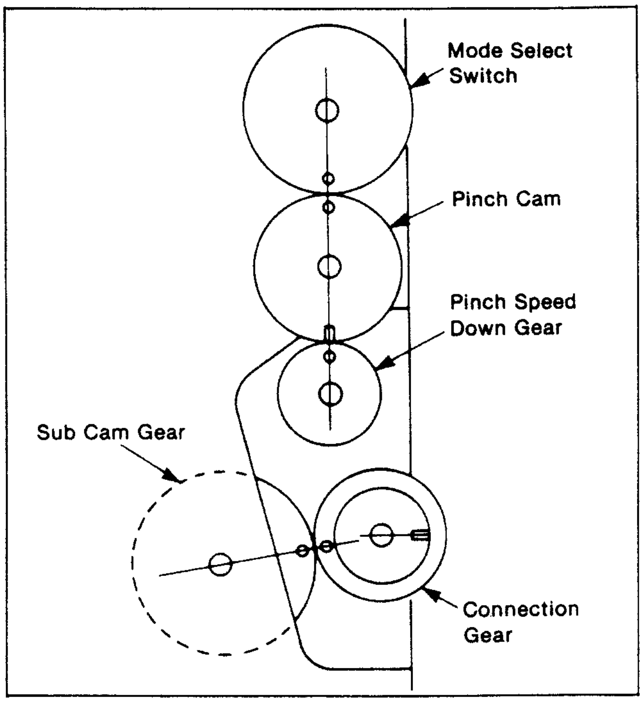

Mode Select Switch
Pinch Cam
Pinch Speed Down Gear
Sub Cam Gear
Connection Gear

Figure M45 Top View of Overall IQ-Mechanical Condition

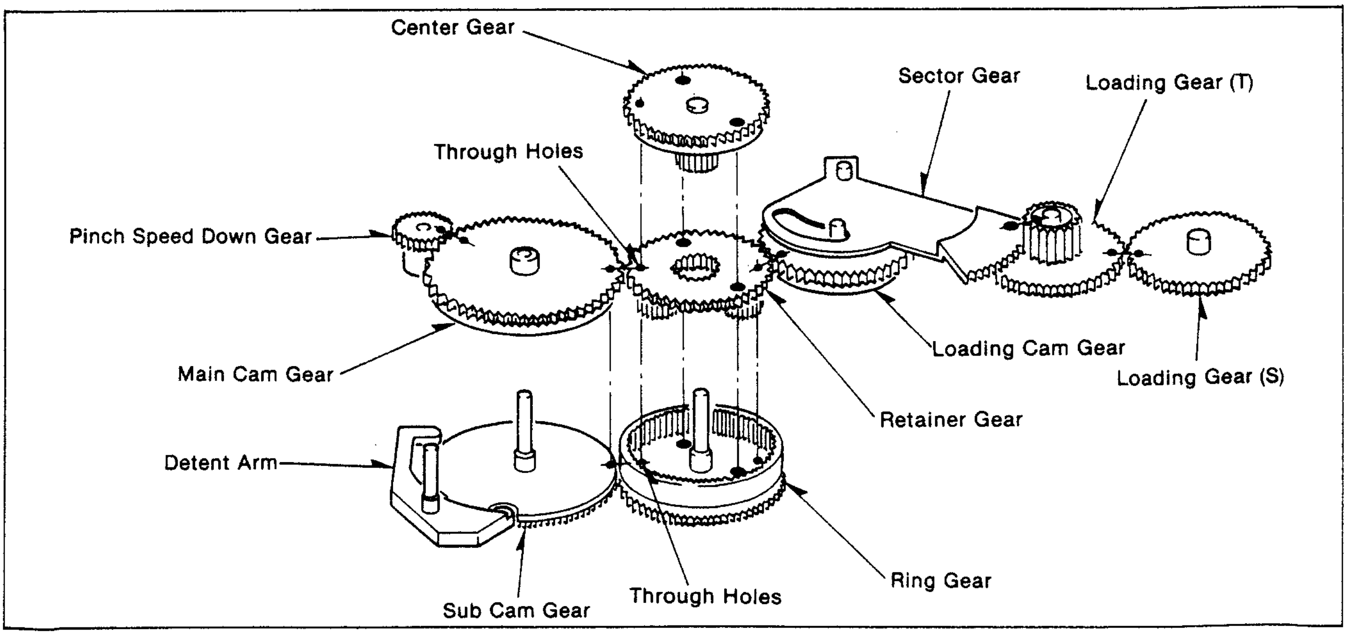

Center Gear
Sector Gear
Loading Gear (T)
Through Holes
Pinch Speed Down Gear
Main Cam Gear
Loading Cam Gear
Loading Gear (S)
Retainer Gear
Detent Arm
Ring Gear
Sub Cam Gear
Through Holes

Figure M46 Bottom View of Overall Mechanical Condition

4-4-2. ASSEMBLY PROCEDURES OF SUB CAM GEAR, RING GEAR AND DETENT ARM

1. Install the Ring Gear so that the two holes on the Ring Gear align with the two holes on the chassis as shown in Figure M47.
2. Install the Sub Cam Gear so that the large hole on Sub Cam Gear aligns with the hole on chassis. Also the small hole (located just outside of large hole) on Sub Cam Gear should align with the hole on Ring Gear as shown in Figure M47.
3. Confirm that the small hole on Sub Cam Gear is aligned with the small hole on Connection Gear as shown in Figure M45 (In case of the Connection Gear is already installed).
4. Install the Detent Arm and make sure Detent Arm seats perfectly in detent of Sub Cam Gear as shown in Figure M47.

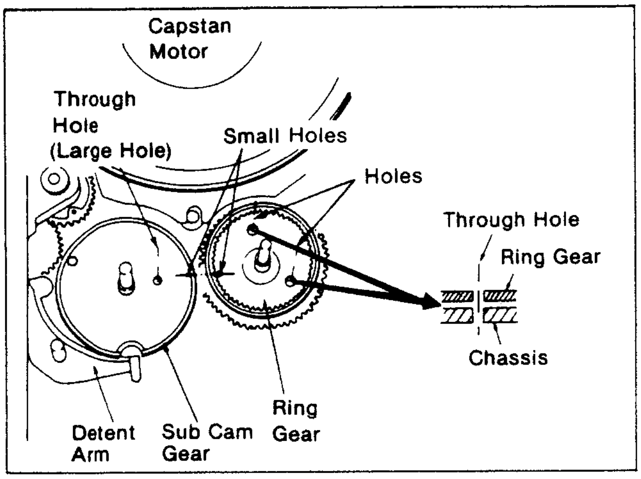

Capstan Motor
Through Hole (Large Hole)
Small Holes
Holes
Through Hole
Ring Gear
Chassis
Detent Arm
Sub Cam Gear
Ring Gear

Figure M47

4-4-3. ASSEMBLY PROCEDURES OF MAIN CAM GEAR AND PINCH SPEED DOWN GEAR

1. Install the Main Cam Gear onto the Sub Cam Gear so that the small hole on the Main Cam Gear aligns with small hole on the Ring Gear as shown in Figure M48.
2. Insert a retaining ring.
3. Install the Pinch Speed Down Gear from top side of chassis so that the small hole on the Main Cam Gear aligns with small hole on the Pinch Speed Down Gear as shown in Figure M48.

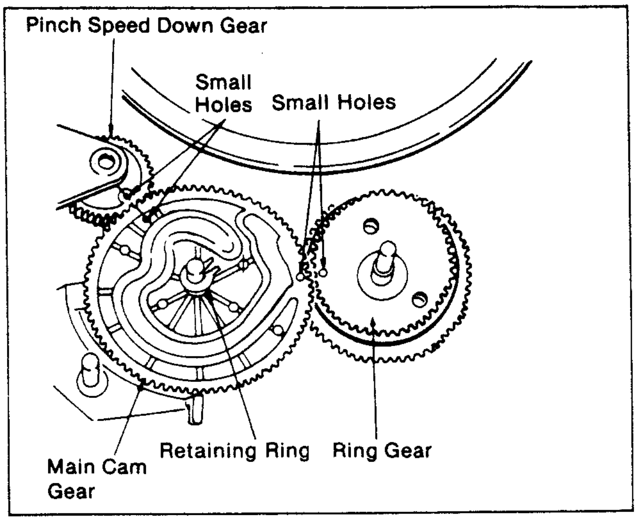

Pinch Speed Down Gear
Small Holes
Small Holes
Main Cam Gear
Retaining Ring
Ring Gear

Figure M48

4-4-4. ASSEMBLY PROCEDURES OF LOADING CAM GEAR AND RETAINER GEAR

1. Install the Retainer Gear onto the Ring Gear so that the two holes on the Retainer Gear align with the two holes on the Ring Gear, at this time, small hole on the Main Cam Gear should aligns with small hole on the Retainer Gear as shown in Figure M49.
2. Install the Loading Cam Gear so that the small hole which is directly outside of the large hole on the Loading Cam Gear is aligned with the outside hole of the Retainer Gear as shown in Figure M49.

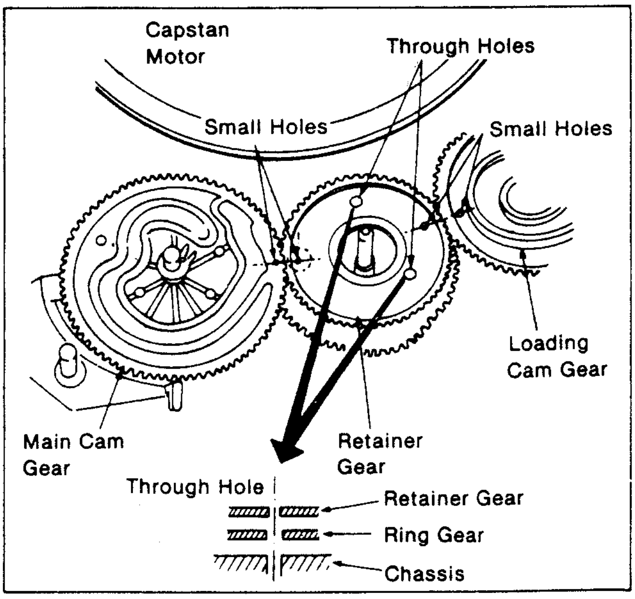

Capstan Motor
Through Holes
Small Holes
Small Holes
Loading Cam Gear
Main Cam Gear
Retainer Gear
Through Hole
Retainer Gear
Ring Gear
Chassis

Figure M49

4-4-5. ASSEMBLY PROCEDURES OF CENTER GEAR

1. Softly install the Center Gear onto the Retainer Gear so that the two holes in the Center Gear align with the holes on the Retainer Gear, then install the cut washer as shown in Figure M50.

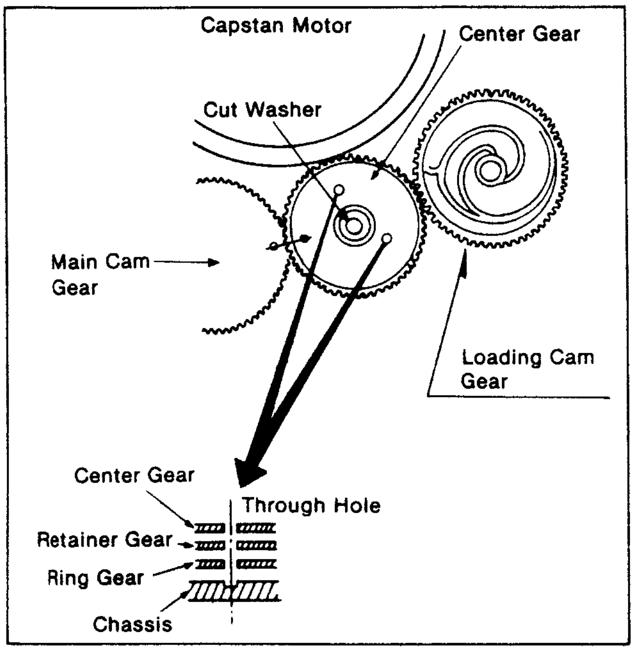

Capstan Motor
Center Gear
Cut Washer
Main Cam Gear
Loading Cam Gear
Center Gear
Through Hole
Retainer Gear
Ring Gear
Chassis

Figure M50

4-4-6. ASSEMBLY PROCEDURES OF MAIN LEVER AND CAM FOLLOWER ARM UNIT

1. Install the Main Rod and then insert the cut washers as shown in Figure M51.
2. Install the Cam Follower Arm so that the pin of the Cam Follower Arm inserts into the groove of the Main Cam Gear and also inserts into the slot on the Main Rod, insert the retaining ring.

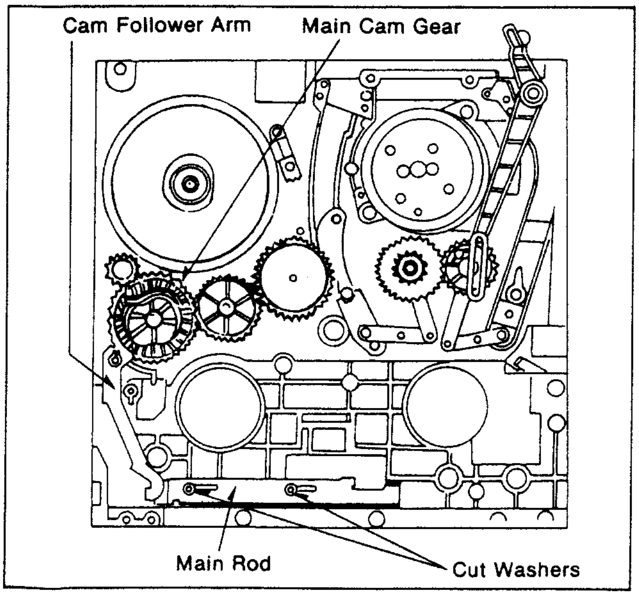

Cam Follower Arm
Main Cam Gear
Main Rod
Cut Washers

Figure M51

4-4-7. ASSEMBLY PROCEDURES OF LOADING GEAR (T), LOADING GEAR (S) SECTOR GEAR

1. Set the P2 and P3 posts to fully unloaded position, then install the Loading Gear (T) and (S) so that the outer hole on the Loading Gear (T) aligns with the outer hole on the Loading Gear (S) as shown in Figure M52.
2. Install the Sector Gear so that the outer hole in the Sector Gear aligns with the projection mark on Loading Gear (T).
3. Insert 3 retaining rings as shown in Figure M53.

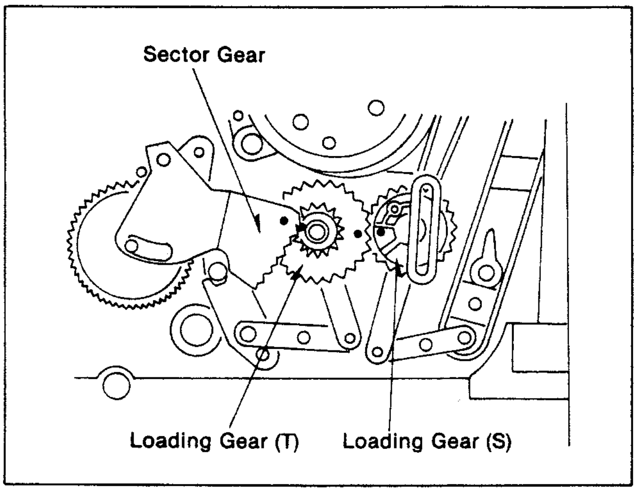

Sector Gear
Loading Gear (T)
Loading Gear (S)

Figure M52

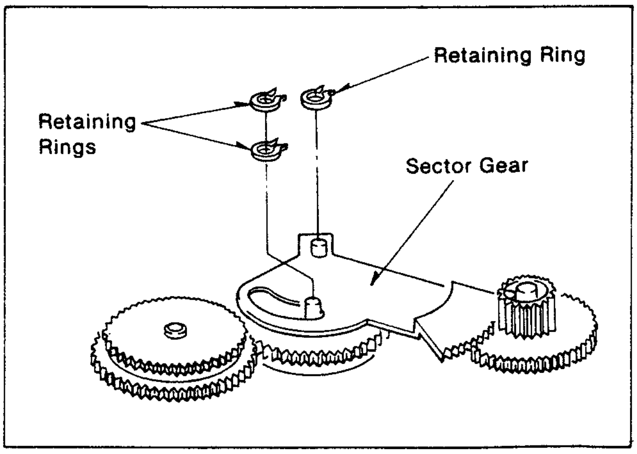

Retaining Ring
Retaining Rings
Sector Gear

Figure M53

4-4-8. ASSEMBLY PROCEDURES OF CONNECTION GEAR

<<NOTE>>
Before assembling, Sub Cam Gear position (and positions of bottom side gears) must be correct as described before (Figure M45).

1. Install the Connection Gear so that the small hole on the Connection Gear aligns with the small hole on the Sub Cam Gear as shown in Figure M54.

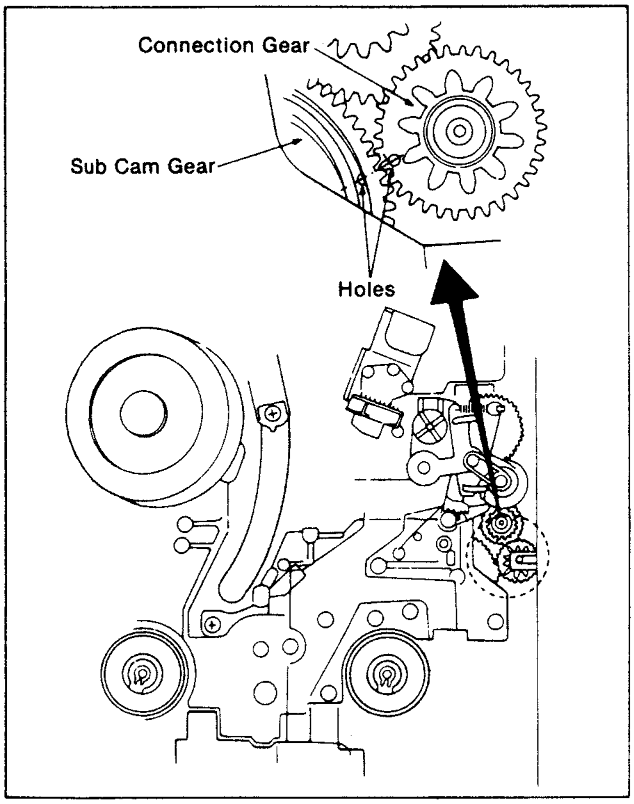

Connection Gear
Sub Cam Gear
Holes

Figure M54

4-4-9. ASSEMBLY PROCEDURES OF MODE SWITCH AND P5 PULL OUT SECTOR GEAR

1. Turn the Center Gear to unloading position.
2. Install the Mode Select Switch and tighten the mounting screw, then solder the 5 soldering portions.
3. Install the P5 Pull Out Sector Gear so that the hole of P5 Pull Out Sector Gear aligns with the tip of gear at P5 Arm as shown in Figure M55.

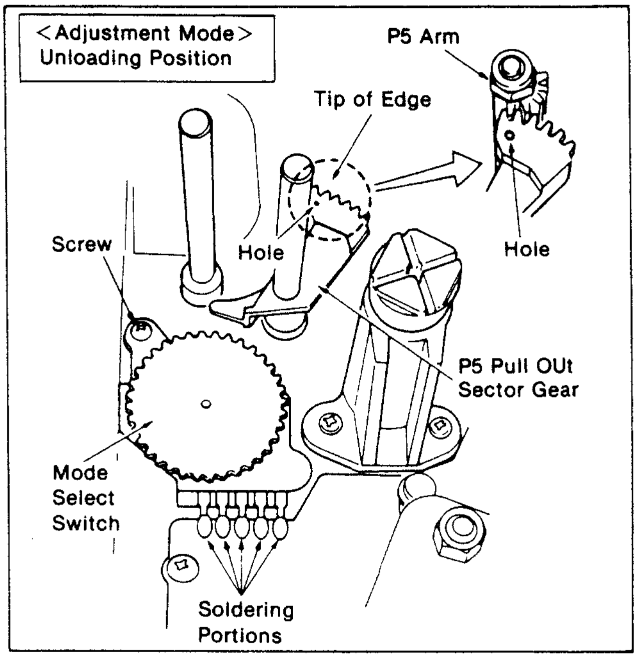

<Adjustment Mode>
Unloading Position
P5 Arm
Tip of Edge
Screw
Hole
Hole
P5 Pull OUt Sector Gear
Mode Select Switch
Soldering Portions

Figure M55

4-4-10. ASSEMBLY PROCEDURES OF PINCH CAM AND PRESSURE ROLLER UNIT

1. Install the Pinch Cam while pushing the P5 post forward. The gear of the Pinch Cam should drop to a seated position. In this position make sure hole in the Mode Select Switch aligns with small hole on the Pinch Cam, also the small rift on the Pinch Cam should align with the hole on the Pinch Speed Down Gear as shown in Figure M56.
2. Install the Pressure Roller Unit. Make sure the seats perfectly onto the Pinch Cam, then install the Pinch Cam Cap.

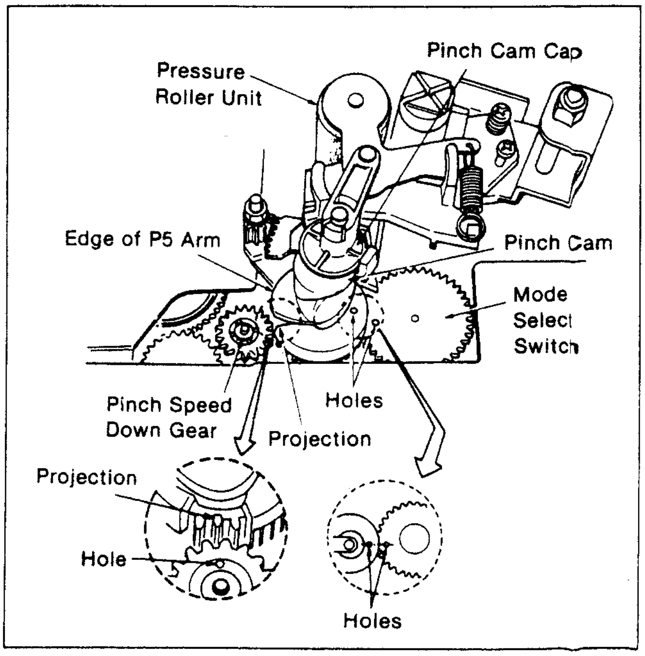

Pinch Cam Cap
Pressure Roller Unit
Edge of P5 Arm
Pinch Cam
Mode Select Switch
Pinch Speed Down Gear
Holes
Projection
Projection
Hole
Holes

Figure M56

4-4-11. ASSEMBLY PROCEDURES OF GEAR BASE UNIT

1. Install the Gear Base Unit and screw 4 screws as shown in Figure M57.

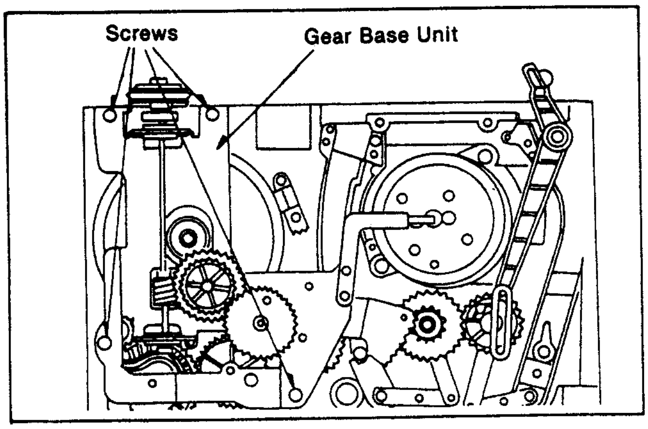


Figure M57

<<NOTE>>
The Gear Base Unit has 2 gears and wormshaft. There is no adjustment for these gears.

4-4-12. REINSTALLATION OF CASSETTE COMPARTMENT

When you reinstall the cassette compartment, the position adjustment of mechanism is necessary for correct operation, as follows.

A. Confirmation of STOP Alignment Condition

1. Turn the Wormshaft counter-clockwise or clockwise until mechanism is placed into the Alignment Condition as following conditions.
   a) Identification hole on the Mode Select Switch at 6 oclock position and aligned with small hole on Pinch Cam. (Figure M56)
   b) P5 Arm is completely loading position and the Inclined Base (S) and (T) are completely unloading position.
   c) Small hole on Sub Cam Gear should align with small hole on the Connection Gear (Figure M54) and rectangular mark on the Connection Gear should be at a 3 oclock position.
   d) Pressure Roller Unit is UP position.

B. Confirmation of Cassette Compartment

1. Confirm that the Cassette Compartment is aligned properly. In the EJECT position (Cassette Holder up and advanced to the front) the two V-shaped marks on the slide switch should align. The slide switch is located on the right side of the Cassette Assembly towards the rear as shown in Figure M58.

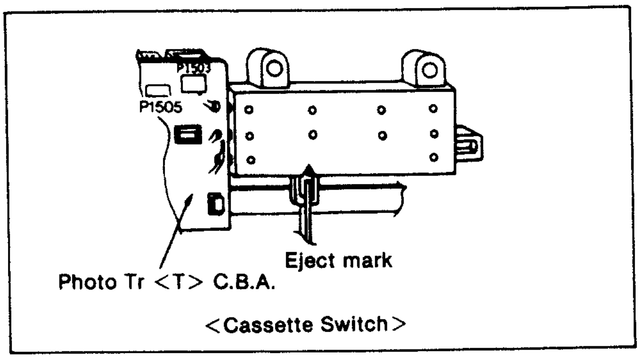


Figure M58

2. Remove 3 screws (A) as shownin Figure M59.
3. Take the top plate out.
4. Take the cassette Holder unit out as shown in Figure M60.

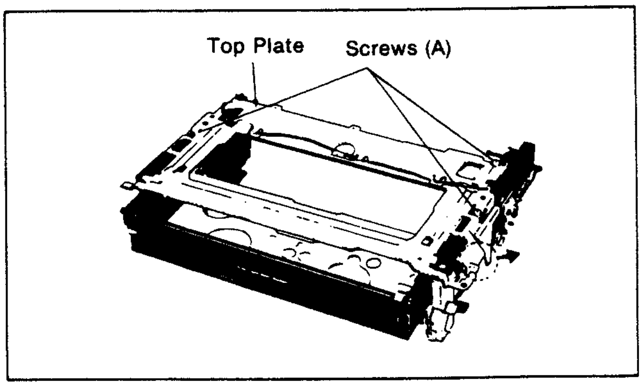


Figure M59

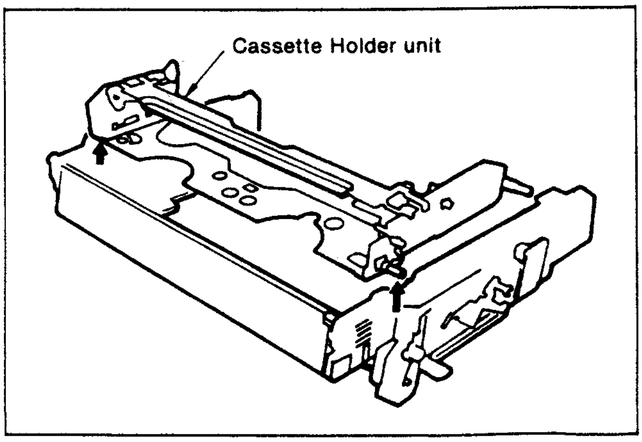


Figure M60 Removal of cassette holder unit

5. Press the sub wiper arm (R) to direction indicated by arrow so that the sub wiper arm (R) comes to cassette down position (STOP) completelyas shown in Figure M61 and keepit.
   In this position, the arrow on the Sub Wiper Arm (R) should align with the arrow on the Rack (A)(1) Unit as shown in Figure M62.

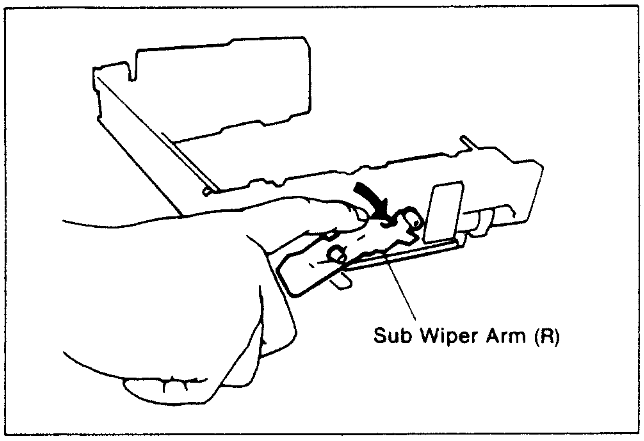

Sub Wiper Arm (R)

Figure M61

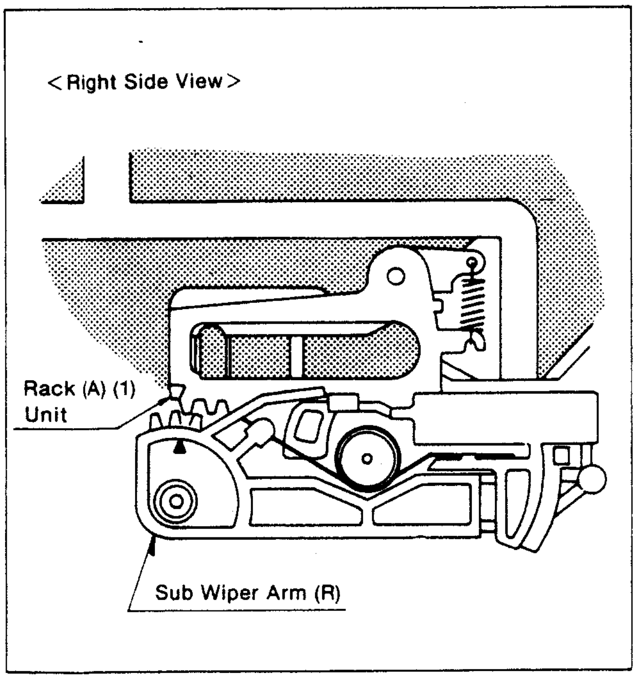

<Right Side View>
Rack (A) (1) Unit
Sub Wiper Arm (R)

Figure M62

6. If the Cassette Compartment is not aligned, re-alignment may be accomplished by pushing the Main Shaft Unit to the right (gently) and pushing the front of the Rack Unit to the left. This procedure will disengage the teeth of the Rack Gear from the teeth on Sub Wiper Arm assembly. This will allow you to change the positional relationship between the Sub Wiper Arm Assembly and Rack Unit. This procedure is best attempted in the EJECT position. Once this is done, check for smooth operation of the compartment by inserting a cassette, and pushing in, and down.

C. Installation Procedure

1. Bring loading mechanism to the STOP (Sub-load) position.
2. Confirm that the chassis is aligned properly for Alignment Condition as shown in Figure M45 and M46.
3. Put the Sub Wiper Arm (R) in its full down position (Sub Wiper Arm should rest on plastic protrusion on the bottom of the right side plate).
4. Install the cassette compartment (without cassette holder) to chassis so that the rectangular marking (or slot) on the connection gear should be line up with first tooth of the Rack Gear as shown in Figure M63 and M64.

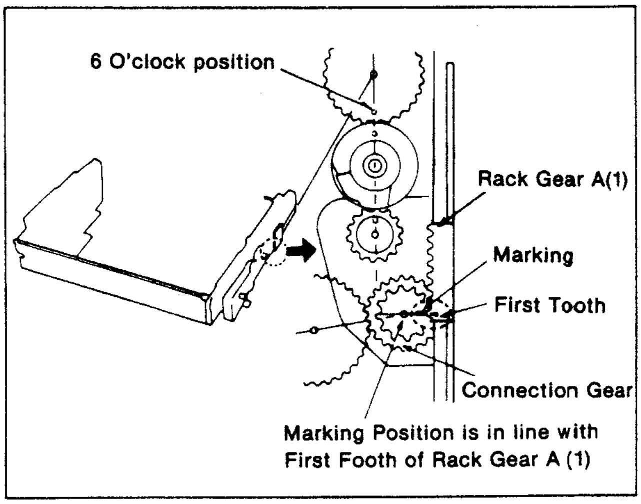

6 O'clock position
Rack Gear A(1)
Marking
First Tooth
Connection Gear
Marking Position is in line with First Footh of Rack Gear A (1)

Figure M63

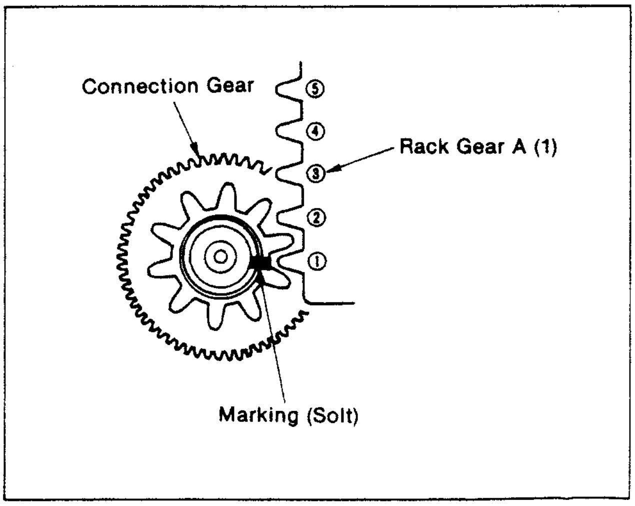

Connection Gear
⑤
④
③
②
①
Rack Gear A (1)
Marking (Solt)

Figure M64

5. Tighten the 4 screws (D) as shown in Figure M65.

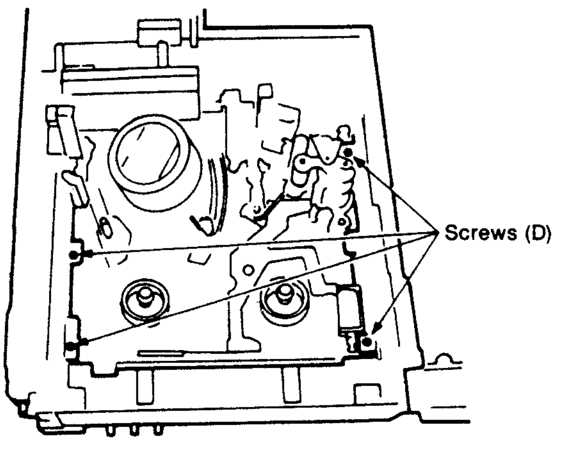
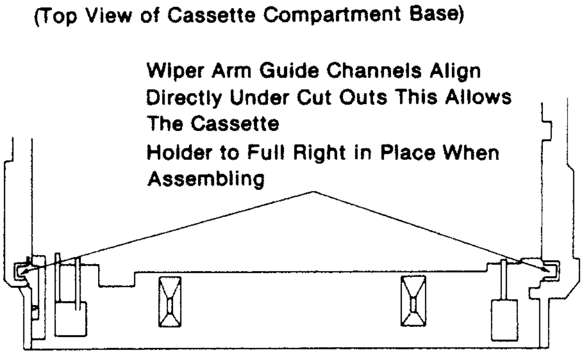


Figure M65

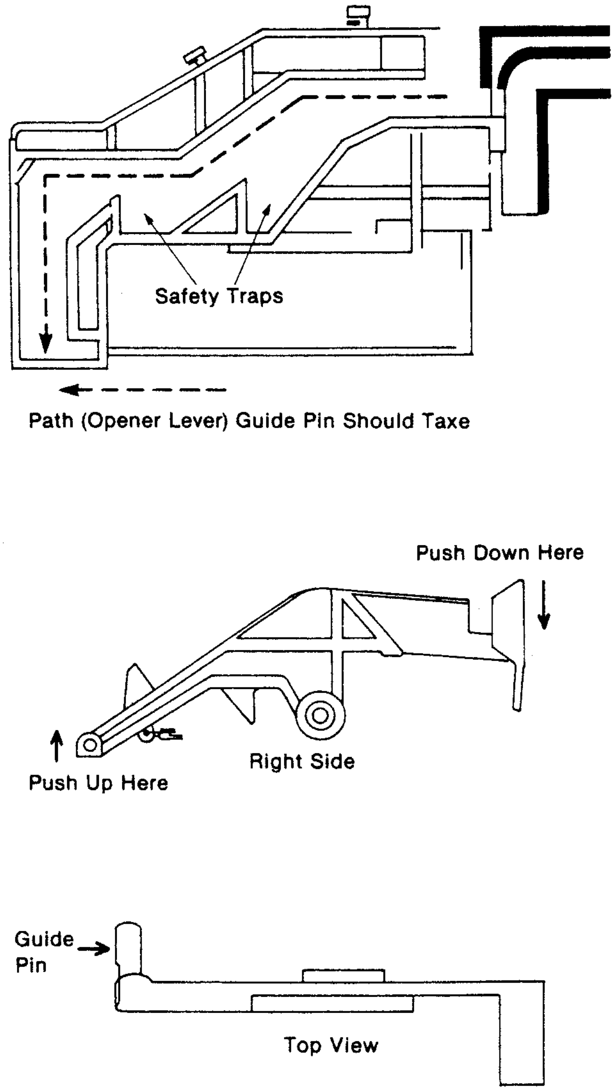
6. Manually move the loading mechanism toward the EJECT position.
7. Stop the manual eject procedure just before completion, so that the Sub Wiper Arms straight up. This position is also characterized by the channel guides (In the Wiper Arms) being directly under the cut outs on the top of the Cassette Compartment base(Figure M66).
8. Install the Cassette Holder Unit in the Cassette Compartment Base. The Cassette Holder should drop into place if the Sub Wiper Arms are portioned as called for in step 7.


(Top View of Cassette Compartment Base)
Wiper Arm Guide Channels Align Directly Under Cut Outs This Allows The Cassette Holder to Full Right in Place When Assembling

∗ Please Note This is Not Final Eject Position.

Figure M66

<<NOTE>>
For proper front loading, the guide pin on the opener lever should follow the upper track of the right side panel as shown in Figure M67.


Safety Traps
Path (Opener Lever) Guide Pin Should Taxe
Push Down Here
Push Up Here
Right Side
Guide Pin
Top View

The Opener Lever is Attached to the Cassette Holder

Figure M67 Right Side Plate

9. Install the top plate on the Cassette Compartment Base and tighten the 2 screws (A) as shown in Figure M59.
10. Manually confirm that front loading and main loading run smoothly. Also confirmEJECT before power is applied.

Section 5

ELECTRICAL ADJUSTMENTS

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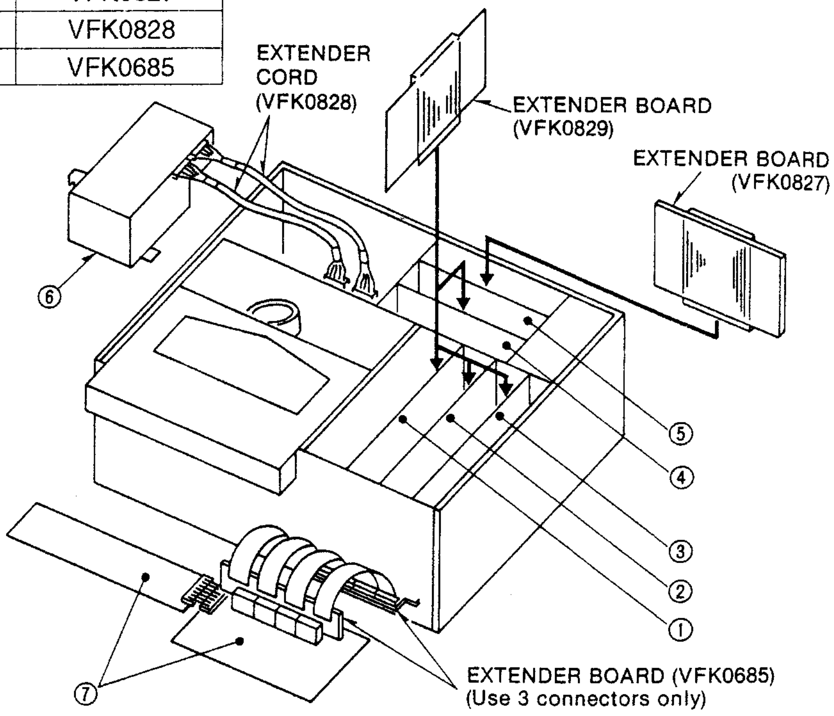
5-1. TEST & SERVICE EQUIPMENT

No.	EQUIPMENT	CAPACITY
1	VTVM(Vacuum Tube Volt Meter) or DVM(Digital Volt Meter)	0.001 to 50V
2	Dual-Trace Oscilloscope (with Probes)	0.005 to 50V/div, DC to 20MHz
3	Frequency Counter	0 to 10MHz
4	Sinewave Signal Generator (RC Oscillator)	0 to 10MHz
5	Video Sweep Generator	0 to 10MHz
6	Waveform Monitor	
7	Video Signal Generator(Composite)	Colour Bar / Multi Burst / Sin^2 Pulse & Bar etc.
8	Spectrum Analyzer	
9	Vector Scope	
10	Colour Monitor TV	
11	VHS Alignment Tape (VFM8180HADH)	
12	Extender Board (VFK0827)(32Pin)	
13	Extender Board (VFK0829)(64Pin)	

5-2. HOW TO USE OF THE EXTENDER BOARD; VFK0827 VFK0829

Please use the Extender Boards (VFK0827, 0829) for adjusting or checking of following P.C.Boards.

NO.	P.C.BOARD	EXTENDER
1	VIDEO (1) C.B.A.	VFK0829
2	VIDEO (2) C.B.A.	
3	VIDEO (3) C.B.A.	
4	SYSCON C.B.A.	
5	AUDIO C.B.A.	VFK0827
6	POWER SUPPLY UNIT	VFK0828
7	FRONT (1), (2) C.B.A.	VFK0685


EXTENDER CORD (VFK0828)
EXTENDER BOARD (VFK0829)
EXTENDER BOARD (VFK0827)
⑥
⑤
④
③
②
①
⑦
EXTENDER BOARD (VFK0685) (Use 3 connectors only)

5-3. ADJUSTMENT PROCEDURES

5-3-1. TIME DATE CLOCK ADJ. (1)

BOARD	FRONT 1 C.B.A.
TP	TP6601
ADJ.	CT6602
TAPE	
INPUT	
MODE	STOP
M.EQ	FREQUENCY COUNTER
SPEC.	122.070 ± 0.001µS

1. Connect the jumper wire between TP6002 and TP6003 on the System control C.B.A.
2. Set the PROGRAM SW(SW20) to "ADJ" side on the Front 2 C.B.A..
3. Press the H.M button (SW21) on the Front 2 C.B.A..
4. Connect the Frequency counter to TP6601 and TPG.
5. Adjust CT6602 so that 122.070 ± 0.001µS in period mode.
6. After this adjustment, remove the jumper wire from TP6002 and TP6003.

5-3-2. TIME DATE CLOCK ADJ. (2)

BOARD	FRONT 1 C.B.A.
TP	TP6601
ADJ.	CT6601
TAPE	
INPUT	
MODE	STOP
M.EQ	FREQUENCY COUNTER
SPEC.	1048.580 ± 0.006KHz

<<NOTE>>

To achieve the adjustment results, warm up the unit for more than 20 minutes before this adjustment.

1. Connect the Frequency counter to TP6601 and TPG.
2. Adjust CT6601 so that F=1048.580 ± 0.006KHz.

5-3-3. PG SHIFTER ADJ.

BOARD	SERVO C.B.A
TP	TP8005 (VIDEO 2 C.B.A.), VIDEO OUT
ADJ.	VR2002
TAPE	VFM8180HADH PORTION: 2
INPUT	
MODE	PLAY <T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	6.5 ± 0.5H

<<NOTE>>

Tape interchangeability adjustment should be always completed before this adjustment.

1. Play back the alignment tape at the portion 2.
2. Connect the oscilloscope to video output for CH-1 and TP8005 for CH-2.
3. Adjust VR2002 for 6.5H ± 0.5H as shown in Figure E1.

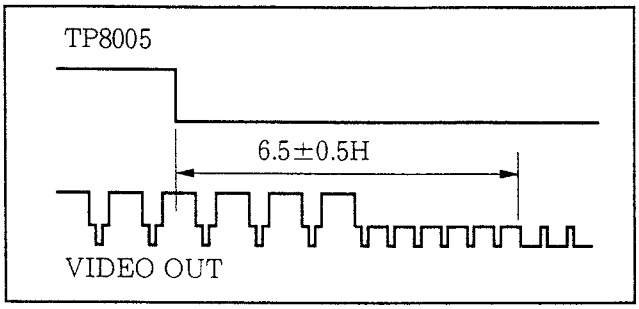


Figure E1

5-3-4. SLOW FREE RUN ADJ.

BOARD	SERVO C.B.A.
TP	TP6004 (SYSTEM CONTROL C.B.A.)
ADJ.	VR2001
TAPE	VFM8180HADH PORTION: 2
INPUT	
MODE	STILL <T-MODE:3H>
M.EQ	FREQUENCY COUNTER
SPEC.	490Hz ± 5Hz

1. Play back the alignment tape at the portion 2 and place the unit in still 3H mode.
2. Connect the jumper wire between TP6002 and TP6003 on the System Control C.B.A.
3. Connect the frequency counter to TP6004.
4. Adjust VR2001 so that F=490Hz ± 5Hz.
5. After this adjustment, remove the jumper wire from TP6002 and TP6003.

5-3-5. SLOW TRACKING ADJ.

BOARD	SERVO C.B.A.
TP	VIDEO OUT
ADJ.	VR2008(FWD), VR2007(REV)
TAPE	SELF RECORDED TAPE
INPUT	COLOUR BAR
MODE	PLAY, REV PLAY <T-MODE:24H>
M.EQ	MONITOR TV
SPEC.	NO NOISE BAR APPEAR

<<NOTE>>

This adjustment should be set the tracking fix position. (Push tracking UP/DOWN buttons at same time)

1. Record the colour bar signal on the 3H mode and play back the just recorded portion in 24H FWD mode.
2. Adjust VR2008 so that no Noise Bar appear on the Monitor TV.
3. Play back the just recorded portion in 24H REV PLAY mode.
4. Adjust VR2007 so that no Noise Bar appear on the Monitor TV.

5-3-6. V-LOCK ADJ.

BOARD	SERVO C.B.A.
TP	VIDEO OUT
ADJ.	VR2004
TAPE	SELF RECORDED TAPE
INPUT	COLOUR BAR
MODE	STILL <T-MODE:3H>
M.EQ	MONITOR TV
SPEC.	NO V-DANCING APPEAR

<<NOTE>>

Before this adjustment should be set the V-LOCK (VR2010 SERVO C.B.A.) to center position.

1. Record the colour bar signal on 3H mode.
2. Play back the just recorded portion in still mode.
3. Adjust VR2004 so that the V-dancing does not appear on the Monitor TV.
4. Confirm that the no V-dancing is appeared on the Monitor screen while 24H PLAY mode after completed this adjustment.

5-3-7. AUTO TRACKING GAIN ADJ.

BOARD	VIDEO 1 C.B.A.
TP	TP3008
ADJ.	VR3008
TAPE	
INPUT	SINE WAVE (4MHz, 200mVp-p)
MODE	STOP <S-VHS REC:OFF,T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	3.2 ± 0.1V

1. Set the sine wave generator output to 4MHz, 200mVp-p.
2. Supply the sine wave signal to TP3004.
3. Connect the oscilloscope to TP3008.
4. Adjust VR3008 so that the level is 3.2 ± 0.1V.

5-3-8. AGC LEVEL ADJ.

BOARD	VIDEO 3 C.B.A.
TP	VIDEO OUT
ADJ.	VR3501
TAPE	
INPUT	COLOUR BAR (S-VIDEO IN)
MODE	STOP
M.EQ	OSCILLOSCOPE
SPEC.	1.0Vp-p ± 0.02V

1. Connect the oscilloscope to video output with a 75 ohm termination.
2. Adjust VR3501 so that video level is 1.0 ± 0.02Vp-p as shown in Figure E2.

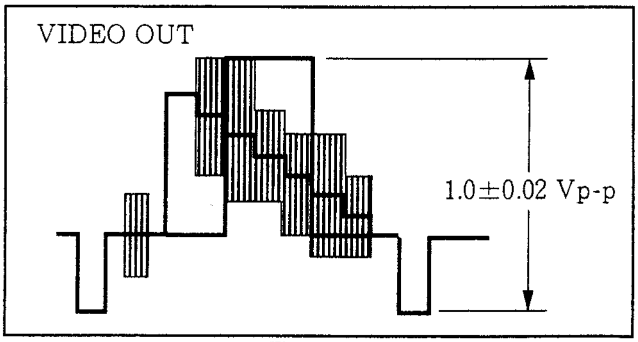


Figure E2

5-3-9. LINE INPUT LEVEL ADJ.

BOARD	VIDEO 3 C.B.A.
TP	VIDEO OUT
ADJ.	VR3506
TAPE	
INPUT	COLOUR BAR
MODE	STOP
M.EQ	OSCILLOSCOPE
SPEC.	1.0Vp-p ± 0.02V

<<NOTE>>

This adjustment should be always performed after completing AGC Level Adjustment.

1. Connect the oscilloscope to the video out with a 75 ohm termination.
2. Adjust VR3506 so that video level is 1.0 ± 0.02Vp-p as shown in Figure E3.

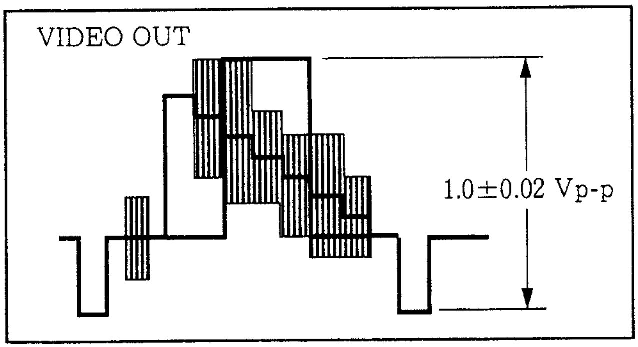


Figure E3

5-3-10. TIME DATE DISPLAY H POSITION ADJ.

BOARD	VIDEO 3 C.B.A.
TP	VIDEO OUT
ADJ.	C3557
TAPE	
INPUT	COLOUR BAR
MODE	STOP
M.EQ	MONITOR TV
SPEC.	

1. Supply a colour bar signal to the Video input.
2. Set the T/D display position to Right-Upper as shown in Figure E4.
3. Adjust C3557 so that the H for time-mode is positioned as shown in Figure E4.

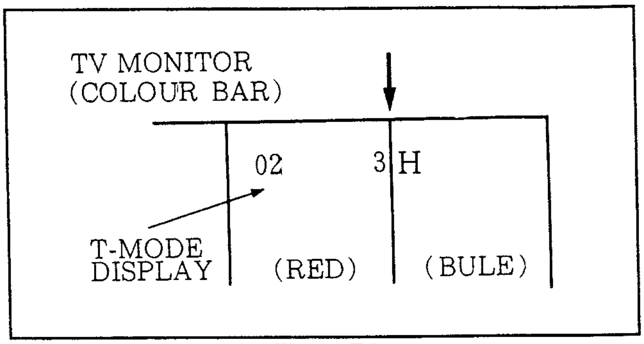


Figure E4

5-3-11. VHS DEVIATION ADJ.

BOARD	VIDEO 2 C.B.A.
TP	TP3003 (VIDEO 1 C.B.A.)
ADJ.	VR8002
TAPE	VHS BLANK TAPE
INPUT	COLOUR BAR
MODE	RECORDING <S-VHS REC:OFF,T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	INNERBEAT IS MINIMUM AS POSSIBLE

1. Connect the sine wave generator to TP3003 and set frequency and output level as follows.

   Frequency : 4.5MHz ± 0.05MHz
   Output : 50mVp-p ~ 100mVp-p

2. Connect the oscilloscope to TP3003.
3. Place the unit in recording mode.
4. Adjust VR8002 so that the inner beat at white portion of the colour bar becomes minimum as possible as shown in Figure E5.

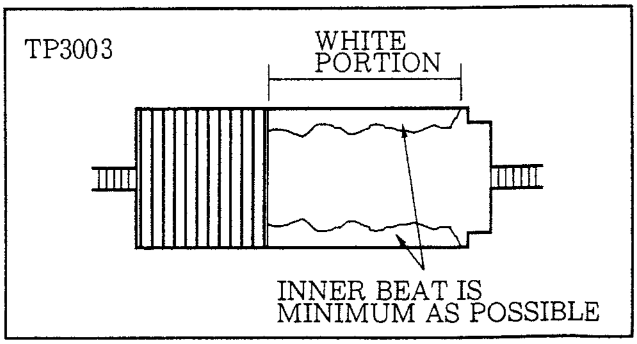


Figure E5

5-3-12. S-VHS DEVIATION ADJ.

BOARD	VIDEO 1 C.B.A.
TP	TP3003
ADJ.	VR3003
TAPE	S-VHS BLANK TAPE
INPUT	COLOUR BAR, SINE WAVE
MODE	RECORDING <S-VHS REC:ON,T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	INNERBEAT IS MINIMUM AS POSSIBLE

<<NOTE>>

This adjustment should be always completed after VHS Deviation Adjustment.

1. Connect the sine wave generator to TP3003 and set frequency and output level as follows.

   Frequency : 7.0MHz ± 0.05MHz
   Output : 50mVp-p ~ 100mVp-p

2. Connect the oscilloscope to TP3003.
3. Place the unit in recording mode.
4. Adjust VR3003 so that the inner beat at white portion of the colour bar becomes minimum as possible as shown in Figure E6.

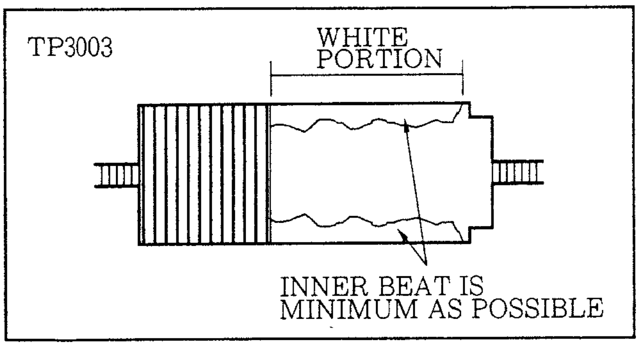


Figure E6

5-3-13. YNR BALANCE ADJ.

BOARD	VIDEO 2 C.B.A.
TP	TP8004
ADJ.	VR8001
TAPE	
INPUT	COLOUR BAR
MODE	STOP
M.EQ	OSCILLOSCOPE
SPEC.	LESS THAN 50mVp-p

1. Connect the oscilloscope to TP8004.
2. Adjust VR8001 so that the waveform becomes minimum as possible (less than 50mVp-p) as shown in Figure E7.

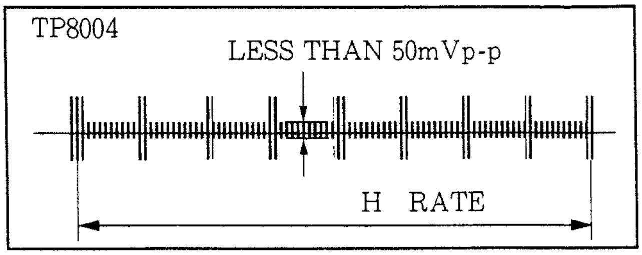


Figure E7

5-3-14. S-VHS RECORDING CURRENT ADJ.

BOARD	HEAD AMP C.B.A.
TP	TP5003 (HOT), TP5002 (GND)
ADJ.	VR5001 (REC Y), VR5002 (REC C)
TAPE	S-VHS BLANK TAPE
INPUT	COLOUR BAR
MODE	RECORDING <S-VHS REC:ON,T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	C=35mVp-p ± 2mV, Y=150mVp-p ± 10mV

1. Connect the oscilloscope to TP5003 (HOT) and TP5002 (GND).
2. Connect the jumper wire between TP3002 and TP3003.
3. Adjust VR5002 for 35 ± 2mVp-p as a cyan level of the chrominance signal as shown in Figure E8.
4. Remove the jumper wire from TP3002 and TP3003.
5. Next, adjust VR5001 for 150 ± 10mVp-p as a luminance signal as shown in Figure E9.

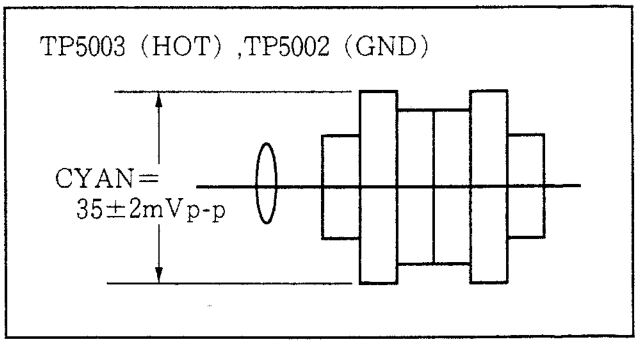


Figure E8

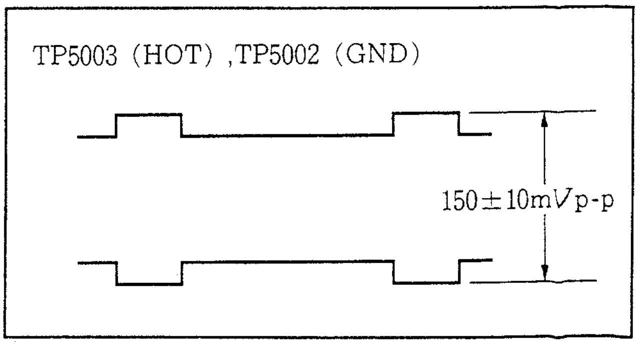


Figure E9

5-3-15. VHS RECORDING CURRENT ADJ.

BOARD	VIDEO 1 C.B.A.
TP	TP5003(H),TP5002(L) HEAD AMP C.B.A.
ADJ.	VR3002
TAPE	BLANK TAPE
INPUT	COLOUR BAR
MODE	RECORDING <S-VHS REC:OFF,T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	150mVp-p ± 10mV

<<NOTE>>

This adjustment should be always completed after S-VHS Recording Current Adjustment.

1. Connect the oscilloscope to TP5003 (HOT) and TP5002 (GND).
2. Adjust VR3002 for 150 ± 10mVp-p as a luminance signal as shown in Figure E10.

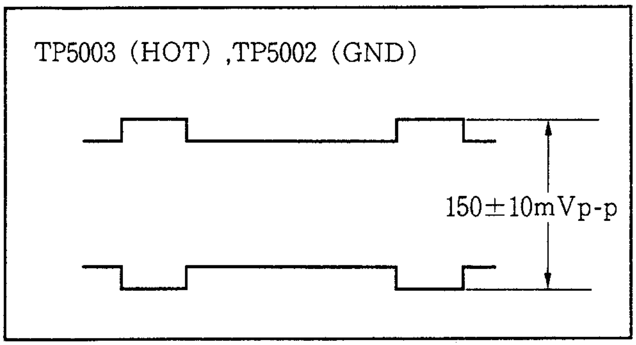


Figure E10

5-3-16. VHS Y PLAYBACK LEVEL ADJ (1).

BOARD	VIDEO 3 C.B.A.
TP	VIDEO OUT
ADJ.	VR3503
TAPE	VHS SELF RECORDED TAPE
INPUT	COLOUR BAR
MODE	PLAY <S-VHS REC:OFF,VTR MODE:B/W>
M.EQ	OSCILLOSCOPE
SPEC.	1.0Vp-p ± 0.02V

<<NOTE>>

This adjustment should be always completed after completion of all adjustment on the recording loop.

1. Record the colour bar signal.
2. Connect the oscilloscope to the video out with a 75 ohm termination.
3. Set the video mode to "B/W" position on the On-Screen setting menu.
4. Play back the just recorded portion.
5. Adjust VR3502 for 1.0 ± 0.02Vp-p as shown in Figure E11.
6. Put back the video mode to "AUTO" position.

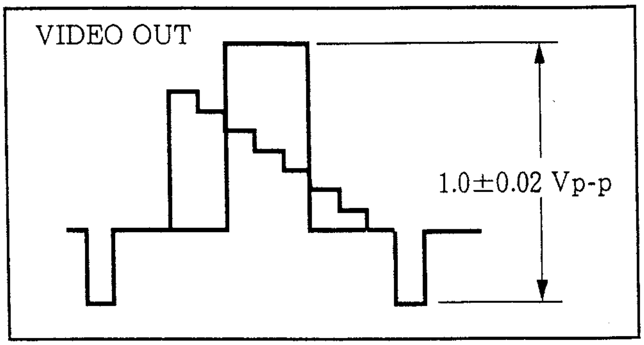


Figure E11

5-3-17. VHS Y PLAYBACK LEVEL ADJ (2).

BOARD	VIDEO 3 C.B.A.
TP	VIDEO OUT
ADJ.	VR3505
TAPE	VHS SELF RECORDED TAPE
INPUT	COLOUR BAR
MODE	PLAY <S-VHS REC:OFF,VTR MODE:AUTO>
M.EQ	OSCILLOSCOPE
SPEC.	1.0Vp-p ± 0.02V

<<NOTE>>

This adjustment should be always completed after VHS Y Playback Level Adjustment (1).

1. Record the colour bar signal.
2. Connect the oscilloscope to the video out with a 75 ohm termination.
3. Play back the just recorded portion.
4. Adjust VR3505 for 1.0 ± 0.02Vp-p as shown in Figure E12.

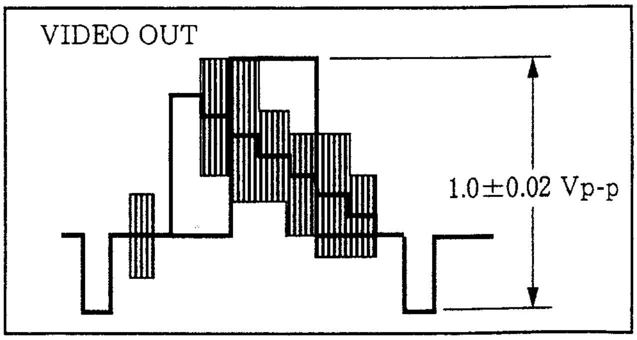


Figure E12

5-3-18. PLAYBACK SUB EMPHASIS INPUT LEVEL ADJ.

BOARD	VIDEO 1 C.B.A.
TP	TP3005
ADJ.	VR3001
TAPE	S-VHS SELF RECORDED TAPE
INPUT	COLOUR BAR
MODE	PLAY <S-VHS REC:ON,T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	400mVp-p ± 10mV

<<NOTE>>

This adjustment should be always completed after completion of all adjustment on the recording loop.

1. Record the colour bar signal.
2. Play back the just recorded portion.
3. Connect the oscilloscope to TP3005.
4. Adjust VR3001 for 400 ± 10mVp-p as shown in Figure E13.

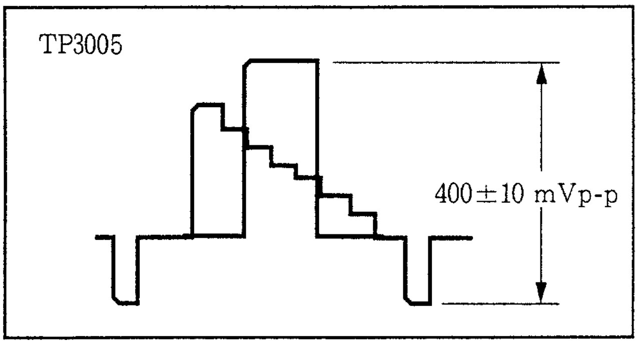


Figure E13

5-3-19. S-VHS PLAYBACK LEVEL ADJ.

BOARD	VIDEO 1 C.B.A.
TP	VIDEO OUT
ADJ.	VR3004
TAPE	S-VHS SELF RECORDED TAPE
INPUT	COLOUR BAR
MODE	PLAY <S-VHS REC:ON,T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	1.0Vp-p ± 0.02V

<<NOTE>>

This adjustment should be always completed after VHS Y Playback Level Adjustment (1),(2) and Playback Sub Emphasis Input Level Adjustment.

1. Record a colour bar signal.
2. Play back the just recorded portion.
3. Connect the oscilloscope to video output with a 75 ohm termination.
4. Adjust VR3004 for 1.0 ± 0.02Vp-p as shown in Figure E14.

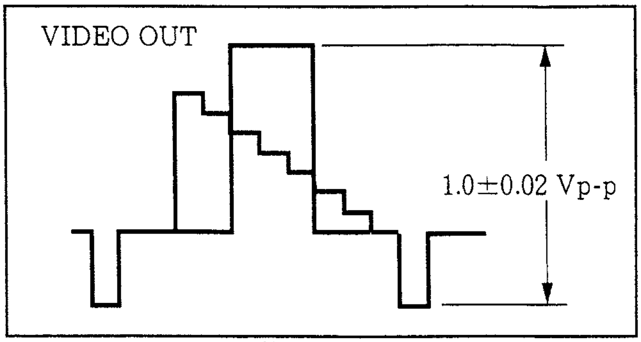


Figure E14

5-3-20. VITC DC LEVEL ADJ.

BOARD	VIDEO 3 C.B.A.
TP	VIDEO OUT
ADJ.	VR3502
TAPE	BLANK TAPE
INPUT	COLOUR BAR
MODE	RECORDING <T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	A : B = 100% : 0 ± 5%

<<NOTE>>

This adjustment should be performed only installed AG-IA670 (OPTION UNIT)

1. Set the VITC REC ON mode on the menu screen.
2. Place the unit in Recording mode.
3. Adjust VR3502 so that A : B = 0 ± 0.5% : 100% as shown in Figure E15.

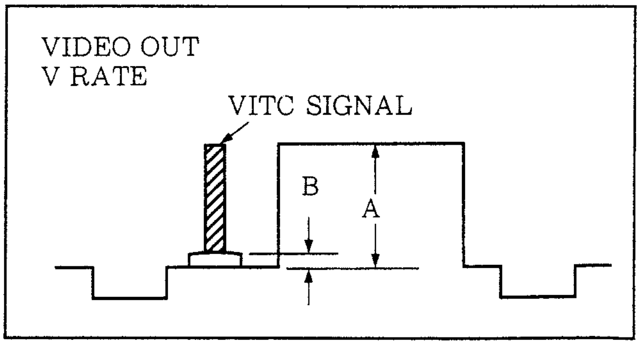


Figure E15

5-3-21. VHS PLAYBACK FREQUENCY RESPONSE ADJ.

BOARD	VIDEO 1 C.B.A.
TP	VIDEO OUT
ADJ.	VR3005
TAPE	VHS SELF RECORDED TAPE
INPUT	30% SWEEP (WITHOUT BURST)
MODE	PLAY <S-VHS REC:OFF,T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	100KHz : 2MHz = 5 : 5.5 ± 0.5 (B/W mode)

<<NOTE>>

Before this adjustment should be set the PICTURE VR to center position.

1. Set the sweep generator output as shown in Figure E16.
2. Record the sweep signal.
4. Connect the oscilloscope to video out.
5. Play back the just recorded portion.
6. Adjust VR3005 so that the play back sweep level becomes 5 : 5.5 ± 0.5 at the marker points of 100KHz and 2MHz as shown in Figure E17. (Vary the vertical scope setting until the 100KHz level reaches 5 division.)

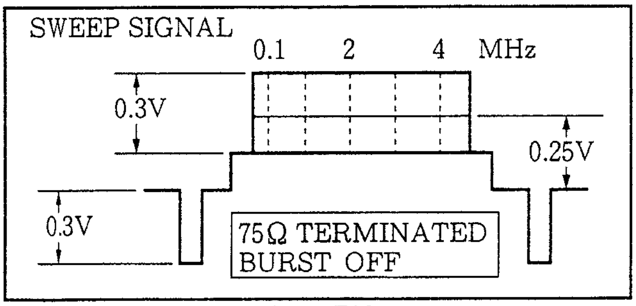

SWEEP SIGNAL
0.1
2
4
MHz
0.3V
0.25V
0.3V
75Ω TERMINATED
BURST OFF

Figure E16

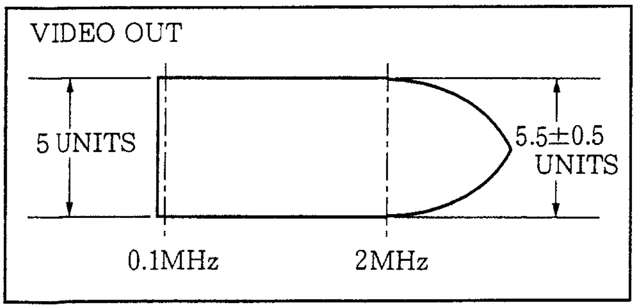

VIDEO OUT
5 UNITS
5.5±0.5
UNITS
0.1MHz
2MHz

Figure E17

5-3-22. S-VHS PLAYBACK FREQUENCY RESPONSE ADJ.

1. Set the sweep generator output as shown in Figure E18.
2. Record the sweep signal.
3. Play back the just recorded portion.
4. Connect the oscilloscope to video out.
5. Adjust VR3007 so that the play back frequency response becomes 5 : 3.5 ± 0.5 at the marker points of 100KHz and 4MHz as shown in Figure E19.

BOARD	VIDEO 1 C.B.A.
TP	VIDEO OUT
ADJ.	VR3007
TAPE	S-VHS SELF RECORDED TAPE
INPUT	30% SWEEP (WITHOUT BURST)
MODE	PLAY <S-VHS REC:ON,T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	100KHz : 4MHz = 5 : 3.5 ± 0.5

(Vary the vertical scope setting until the 100KHz level reaches 5 division)

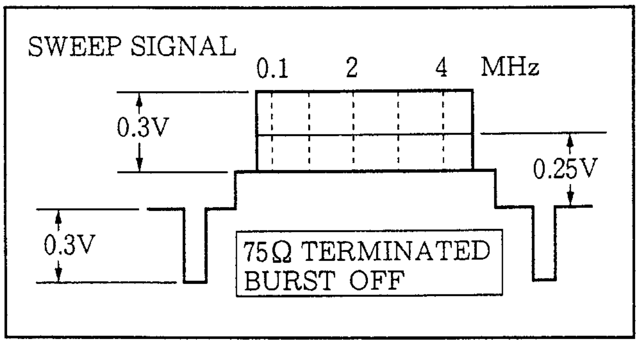

SWEEP SIGNAL
0.1
2
4
MHz
0.3V
0.25V
0.3V
75Ω TERMINATED
BURST OFF

Figure E18

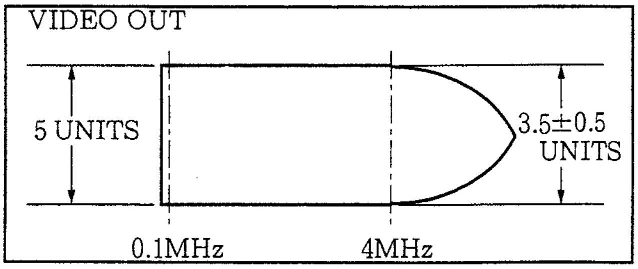

VIDEO OUT
5 UNITS
3.5±0.5
UNITS
0.1MHz
4MHz

Figure E19

5-3-23. S-VHS SUPER LIMITER ADJ.

BOARD	VIDEO 1 C.B.A.
TP	TP3006
ADJ.	VR3006
TAPE	
INPUT	SINE WAVE (7MHz, 200mVp-p)
MODE	STOP <S-VHS REC:ON>
M.EQ	OSCILLOSCOPE
SPEC.	300mVp-p ± 10mV

<<NOTE>>

Prepare the oscilloscope which is type's more than 100MHz.

1. Set the signal generator (sine wave) to 7MHz, 200mVp-p and supply it to TP3007.
2. Connect the 100MHz type's oscilloscope to TP3006.
3. Adjust VR3006 for 300 ± 10mVp-p as shown in Figure E20.

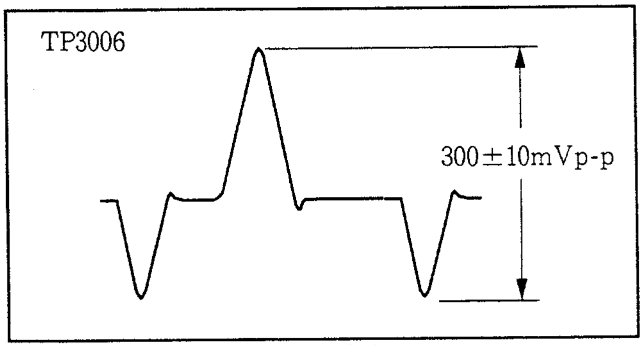


Figure E20

5-3-24. PILOT BURST PHASE ADJ.

BOARD	VIDEO 2 C.B.A.
TP	TP8002
ADJ.	C8023
TAPE	
INPUT	0% FLAT FIELD (W/BURST)
MODE	E-E (S-VHS)
M.EQ	VECTORSCOPE
SPEC.	90° ± 5°

1. Set the on-screen setting as follows;
   (VTR MODE SELECT 2)
   (VIDEO)
   IN LINE
   S-VHS REC ON
2. Supply a 0% flat field (w/burst) signal to the Video input.
3. Connect a jumper wire between TP8003 and GND.
4. Connect TP8002 to the CHA input on the vectorscope.
5. Connect the Video out to EXT. SYNC on the vectorscope.
6. Set the vectorscope to EXT SYNC mode.
7. Adjust C8023 so that the phase of the pilot burst is 90° ± 5° as shown in Figure E21.

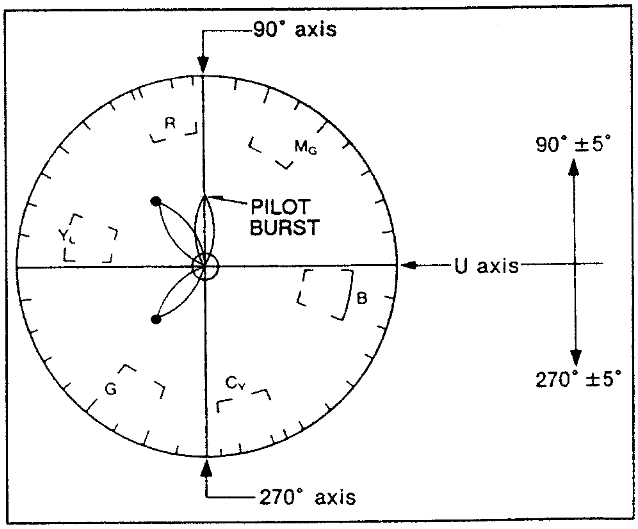


Figure E21

5-3-25. CNR ADJ.

BOARD	VIDEO 2 C.B.A.
TP	TP8006
ADJ.	VR8002, VR8003
TAPE	S-VHS SELF RECORDED TAPE
INPUT	COLOUR BAR
MODE	PLAY <S-VHS REC:ON,T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	LESS THAN 500mVp-p

<<NOTE>>

This adjustment should be always completed after YNR Balance Adjustment.

1. Record the colour bar signal.
2. Connect the oscilloscope to TP8006.
3. Play back the just recorded portion.
4. Adjust VR8003 and VR8004 mutually so that chroma signal becomes minimum as possible (less than 300mVp-p) as shown in Figure E22.

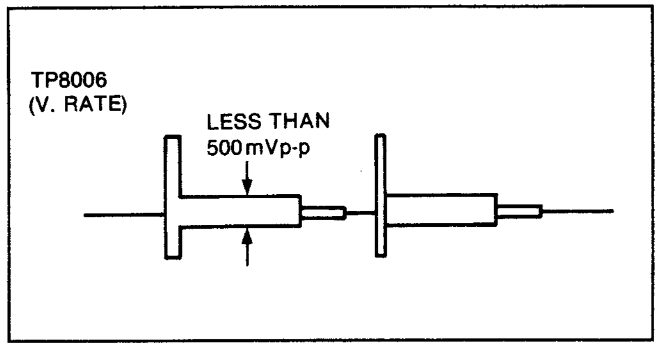

TP8006
(V. RATE)
LESS THAN
500mVp-p

Figure E22

5-3-26. PLAYBACK CHROMA LEVEL ADJ.

BOARD	VIDEO 2 C.B.A.
TP	VIDEO OUT
ADJ.	VR8005
TAPE	S-VHS SELF RECORDED TAPE
INPUT	COLOUR BAR
MODE	PLAY <S-VHS REC:ON,T-MODE:3H>
M.EQ	OSCILLOSCOPE
SPEC.	0.6Vp-p ± 0.03V

1. Record the colour bar signal.
2. Connect the oscilloscope to video output with a 75 ohm termination.
3. Play back the just recorded portion.
4. Adjust VR8005 for 0.6 ± 0.03Vp-p as shown in Figure E23.

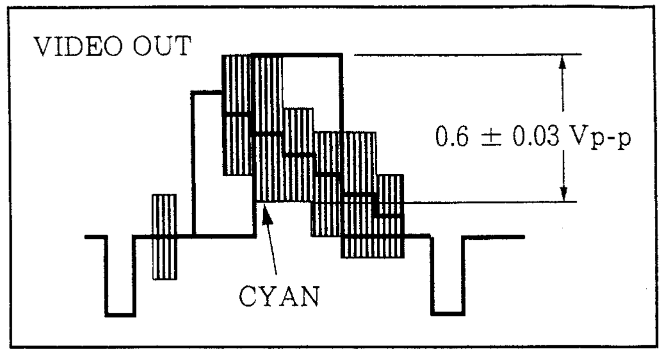

VIDEO OUT
0.6 ± 0.03 Vp-p
CYAN

Figure E23

5-3-27. AUDIO BIAS CURRENT ADJ.

BOARD	AUDIO C.B.A.
TP	TP4001 (H), TP4002 (GND)
ADJ.	VR4002
TAPE	BLANK TAPE
INPUT	
MODE	RECORDING <T-MODE:3H>
M.EQ	V.T.V.M
SPEC.	2.6 ± 0.1mVrms

1. Connect a jumper wire between audio input and GND.
2. Place the unit in recording mode.
3. Connect the V.T.V.M to TP4001 (HOT) and TP4002 (GND).
4. Adjust VR4002 for 2.6 ± 0.1mVrms.

5-3-28. AUDIO PLAYBACK LEVEL ADJ.

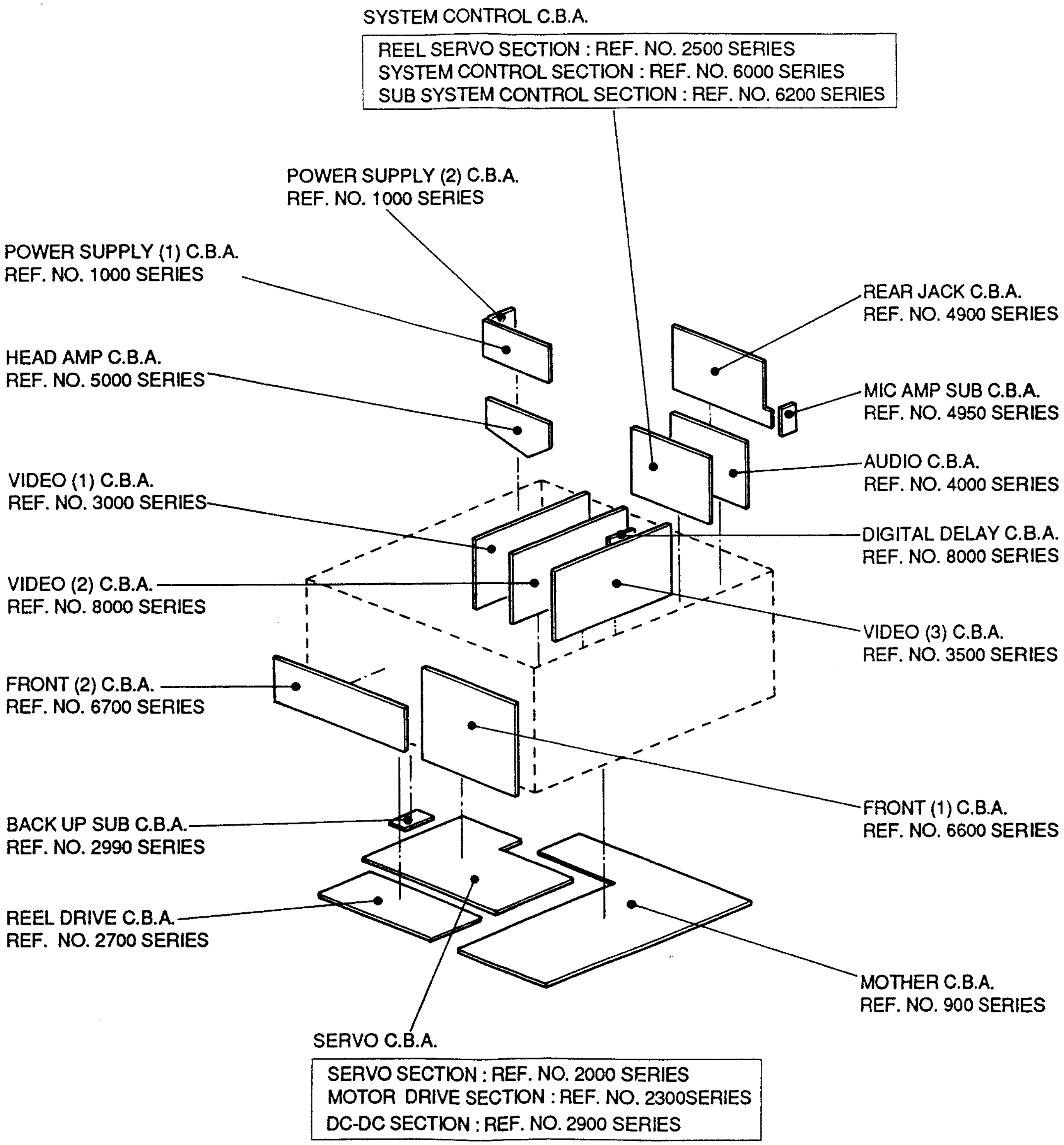
BOARD	AUDIO C.B.A.
TP	AUDIO OUT
ADJ.	VR4001
TAPE	SELF RECORDED TAPE
INPUT	SINE WAVE (1KHz, −10dB)
MODE	PLAY <S-VHS REC:OFF,T-MODE:3H>
M.EQ	V.T.V.M
SPEC.	PB LEVEL = EE LEVEL ± 0.5dB

<<NOTE>>

Before this adjustment Tape Interchangeability Adjustment and Audio Current Adjustment should be completed.

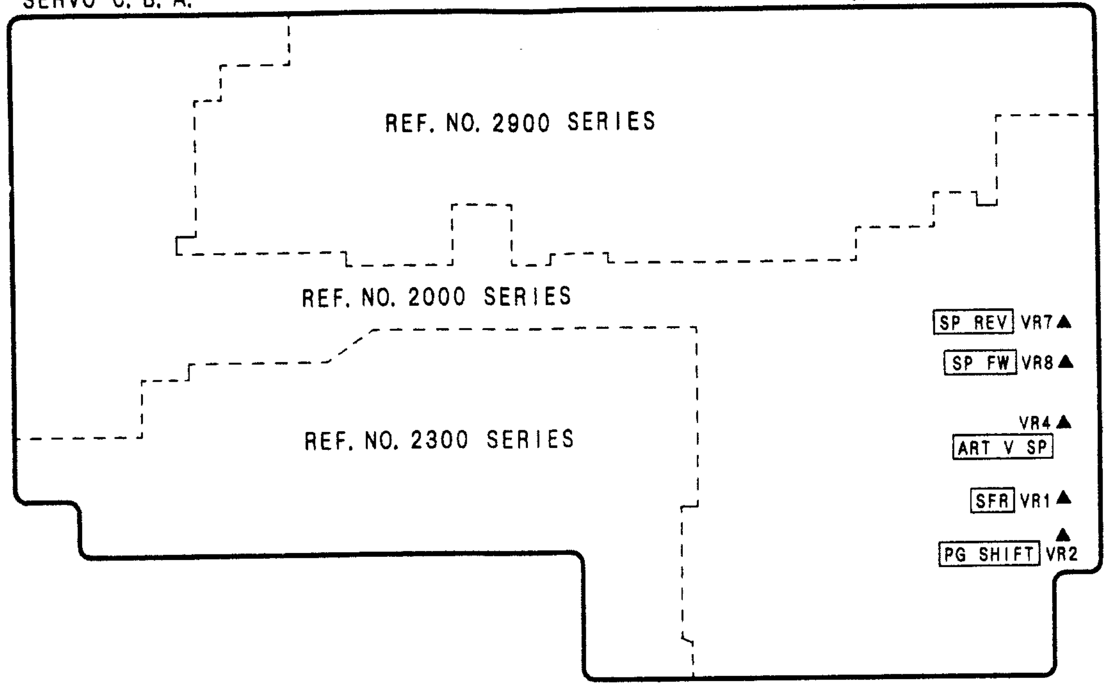
1. Supply the sine wave signal (1KHz, −10dB) to the audio input and record it on 3H mode.
2. Play back just recorded portion.
3. Adjust VR4001 so that play back level equal with EE level.

CIRCUIT BOARD LAYOUT

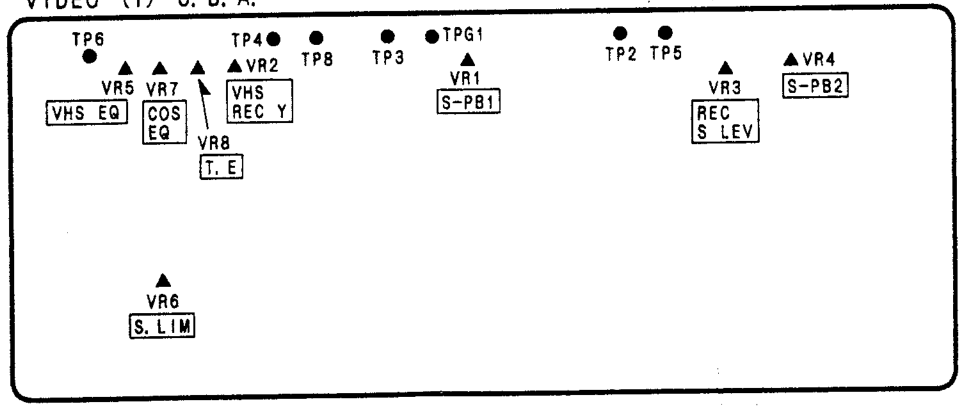

SYSTEM CONTROL C.B.A.
REEL SERVO SECTION : REF. NO. 2500 SERIES
SYSTEM CONTROL SECTION : REF. NO. 6000 SERIES
SUB SYSTEM CONTROL SECTION : REF. NO. 6200 SERIES
POWER SUPPLY (2) C.B.A.
REF. NO. 1000 SERIES
POWER SUPPLY (1) C.B.A.
REF. NO. 1000 SERIES
REAR JACK C.B.A.
REF. NO. 4900 SERIES
HEAD AMP C.B.A.
REF. NO. 5000 SERIES
MIC AMP SUB C.B.A.
REF. NO. 4950 SERIES
AUDIO C.B.A.
REF. NO. 4000 SERIES
VIDEO (1) C.B.A.
REF. NO. 3000 SERIES
DIGITAL DELAY C.B.A.
REF. NO. 8000 SERIES
VIDEO (2) C.B.A.
REF. NO. 8000 SERIES
VIDEO (3) C.B.A.
REF. NO. 3500 SERIES
FRONT (2) C.B.A.
REF. NO. 6700 SERIES
FRONT (1) C.B.A.
REF. NO. 6600 SERIES
BACK UP SUB C.B.A.
REF. NO. 2990 SERIES
REEL DRIVE C.B.A.
REF. NO. 2700 SERIES
MOTHER C.B.A.
REF. NO. 900 SERIES
SERVO C.B.A.
SERVO SECTION : REF. NO. 2000 SERIES
MOTOR DRIVE SECTION : REF. NO. 2300SERIES
DC-DC SECTION : REF. NO. 2900 SERIES

LOCATION OF TEST POINTS AND CONTROLS

SERVO C. B. A. (COMPONENT SIDE)

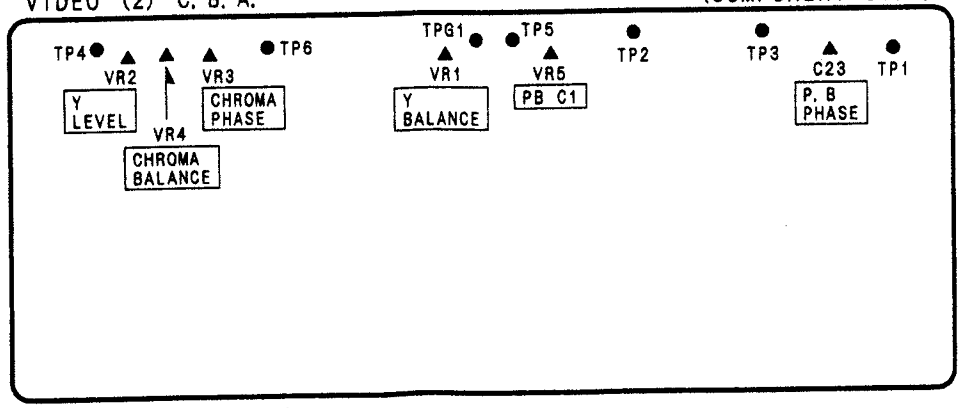

REF. NO. 2900 SERIES
REF. NO. 2000 SERIES
REF. NO. 2300 SERIES
SP REV VR7
SP FW VR8
VR4 ART V SP
SFR VR1
PG SHIFT VR2

VIDEO (1) C. B. A. (COMPONENT SIDE)


TP6
VR5 VHS EQ
VR7 COS EQ
VR8 T. E
VR2 VHS REC Y
TP4
TP8
TP3
TPG1
VR1 S-PB1
TP2
TP5
VR3 REC S LEV
VR4 S-PB2
VR6 S. LIM

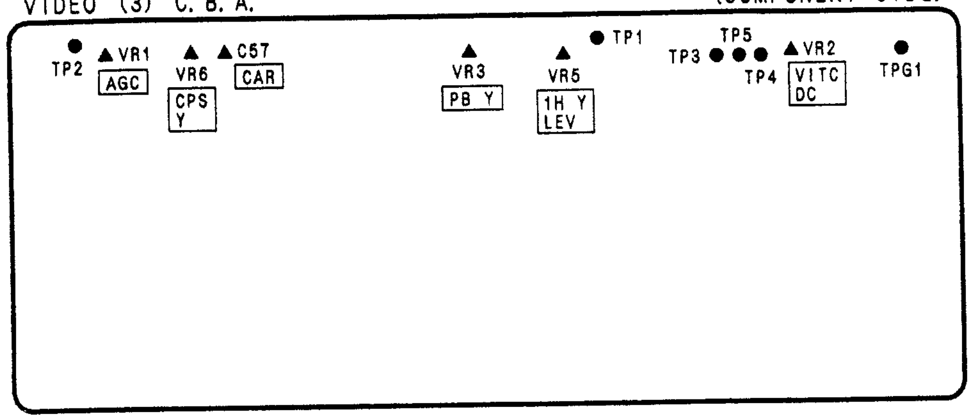
REF. NO. 3000 SERIES

VIDEO (2) C. B. A. (COMPONENT SIDE)


TP4
VR2 Y LEVEL
VR4 CHROMA BALANCE
VR3 CHROMA PHASE
TP6
TPG1
VR1 Y BALANCE
TP5
VR5 PB C1
TP2
TP3
C23 P. B PHASE
TP1

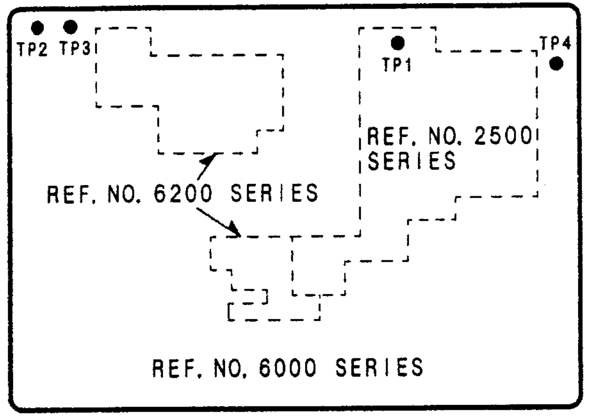
REF. NO. 8000 SERIES

VIDEO (3) C. B. A. (COMPONENT SIDE)

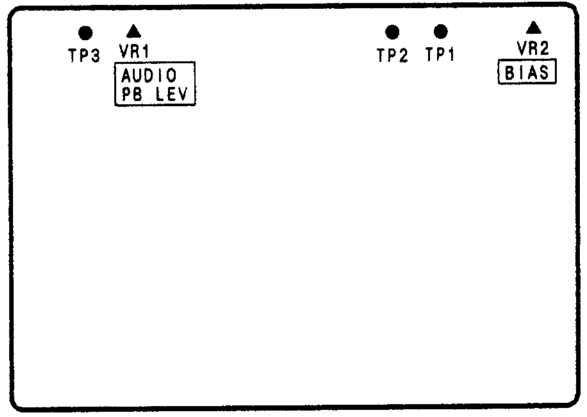

TP2
VR1 AGC
VR6 CPS Y
C57 CAR
VR3 PB Y
VR5 1H Y LEV
TP1
TP3
TP5
TP4
VR2 VITC DC
TPG1

REF. NO. 3500 SERIES

SYSTEM CONTROL C. B. A. (COMPONENT SIDE)

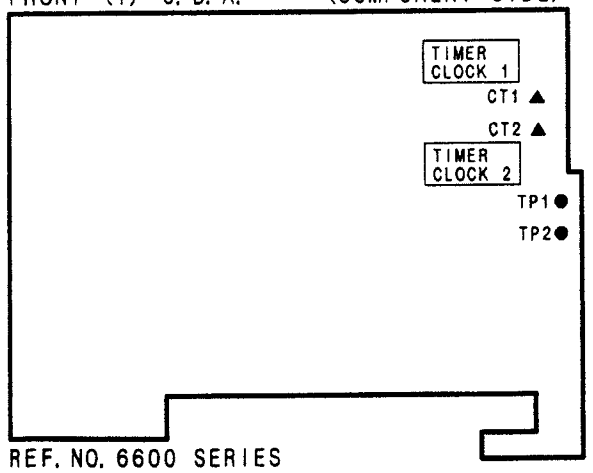

TP2 TP3
TP1
TP4
REF. NO. 2500 SERIES
REF. NO. 6200 SERIES
REF. NO. 6000 SERIES

AUDIO C. B. A. (COMPONENT SIDE)


TP3
VR1 AUDIO PB LEV
TP2 TP1
VR2 BIAS

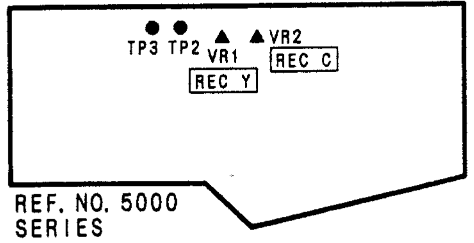
REF. NO. 4000 SERIES

FRONT (1) C. B. A. (COMPONENT SIDE)

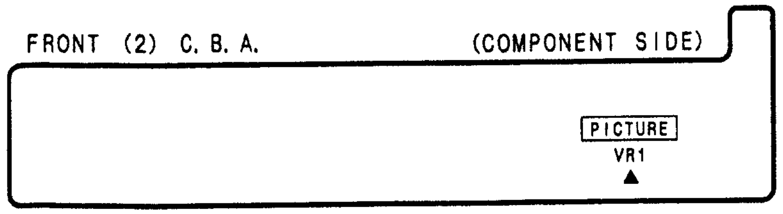

TIMER CLOCK 1
CT1
CT2
TIMER CLOCK 2
TP1
TP2

REF. NO. 6600 SERIES

HEAD AMP C. B. A. (COMPONENT SIDE)


TP3 TP2
VR1 REC Y
VR2 REC C
REF. NO. 5000 SERIES

FRONT (2) C. B. A. (COMPONENT SIDE)


PICTURE
VR1

REF. NO. 6700 SERIES

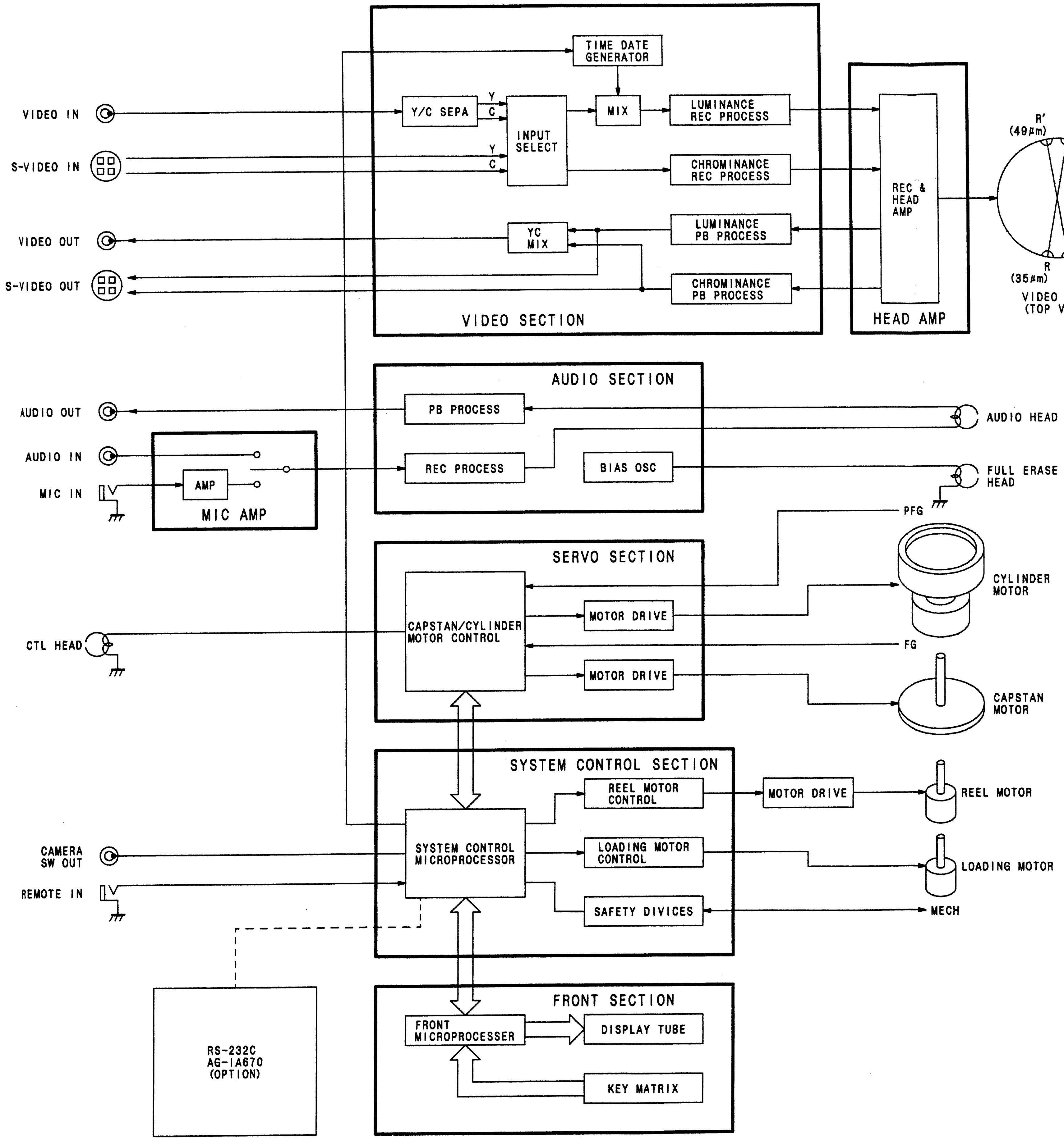
Section 6

BLOCK DIAGRAMS

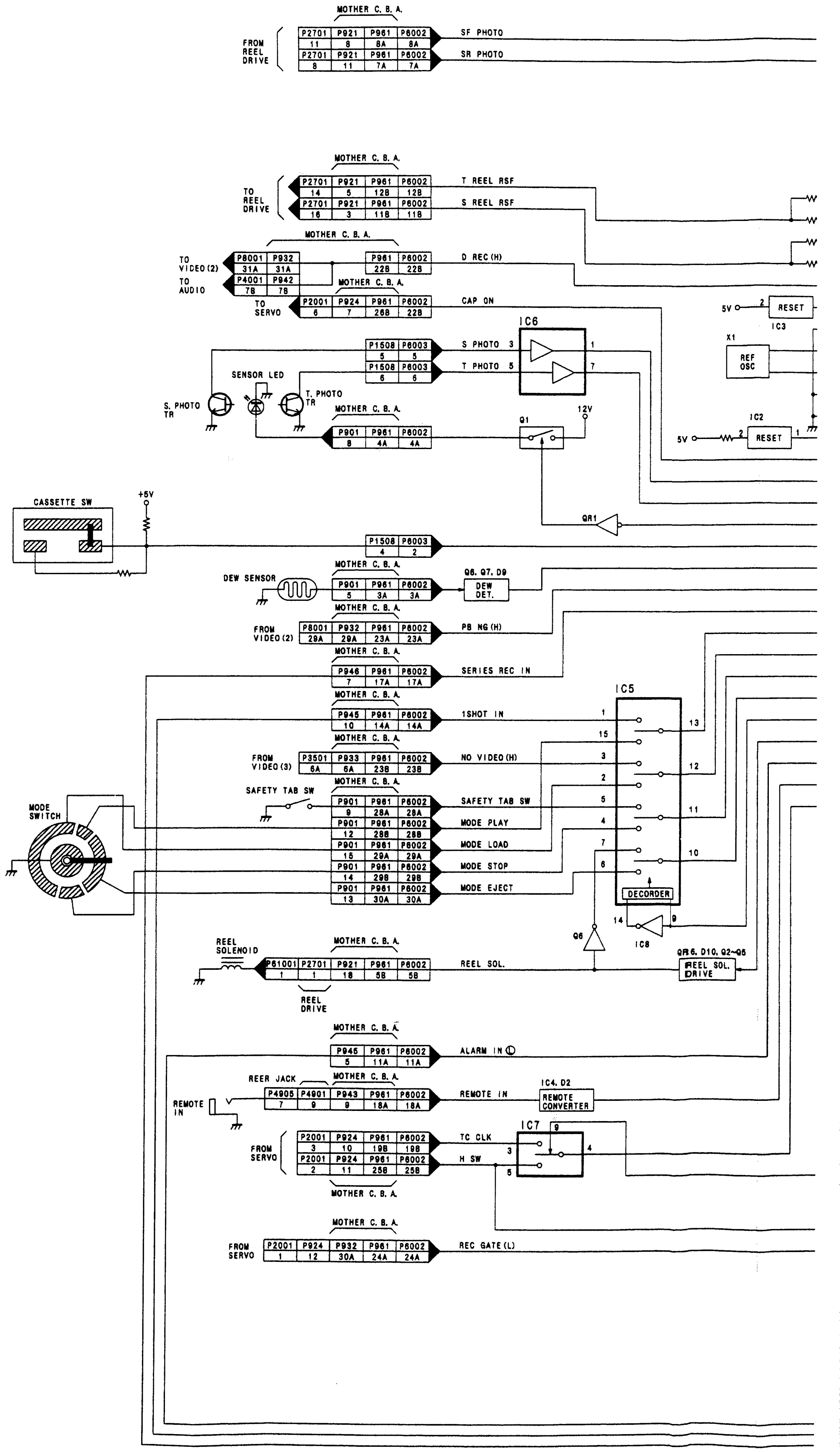
CONTENTS

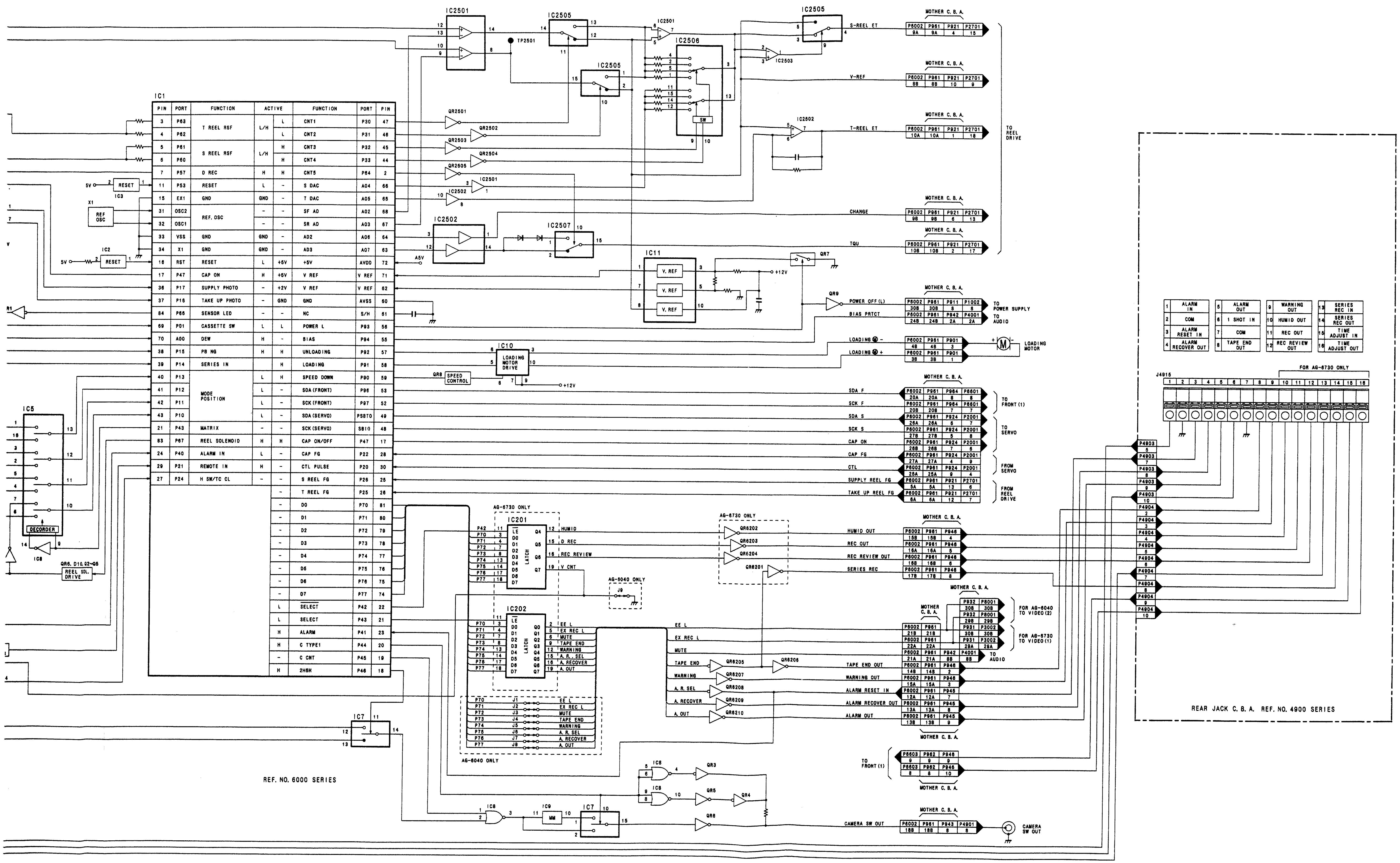
OVERALL BLOCK DIAGRAM BLK-3
SYSTEM CONTROL BLOCK DIAGRAM BLK-3
SERVO BLOCK DIAGRAM BLK-4
VIDEO (1) BLOCK DIAGRAM BLK-5
VIDEO (3) BLOCK DIAGRAM BLK-6
VIDEO (2) BLOCK DIAGRAM BLK-7
REEL DRIVE BLOCK DIAGRAM BLK-8
FRONT (1) AND FRONT (2) BLOCK DIAGRAM BLK-9

OVERALL BLOCK DIAGRAM


VIDEO IN
S-VIDEO IN
VIDEO OUT
S-VIDEO OUT
Y/C SEPA
Y
C
INPUT SELECT
TIME DATE GENERATOR
MIX
LUMINANCE REC PROCESS
CHROMINANCE REC PROCESS
LUMINANCE PB PROCESS
CHROMINANCE PB PROCESS
YC MIX
VIDEO SECTION
REC & HEAD AMP
HEAD AMP
R' (49µm)
L (35µm)
R (35µm)
L' (49µm)
VIDEO HEAD (TOP VIEW)
AUDIO SECTION
AUDIO OUT
AUDIO IN
MIC IN
AMP
MIC AMP
PB PROCESS
REC PROCESS
BIAS OSC
AUDIO HEAD
FULL ERASE HEAD
PFG
SERVO SECTION
CAPSTAN/CYLINDER MOTOR CONTROL
MOTOR DRIVE
MOTOR DRIVE
CTL HEAD
FG
CYLINDER MOTOR
CAPSTAN MOTOR
SYSTEM CONTROL SECTION
SYSTEM CONTROL MICROPROCESSOR
REEL MOTOR CONTROL
LOADING MOTOR CONTROL
SAFETY DIVICES
MOTOR DRIVE
REEL MOTOR
LOADING MOTOR
MECH
CAMERA SW OUT
REMOTE IN
RS-232C AG-IA670 (OPTION)
FRONT SECTION
FRONT MICROPROCESSER
DISPLAY TUBE
KEY MATRIX

SYSTEM CONTROL BLOCK DIAGRAM

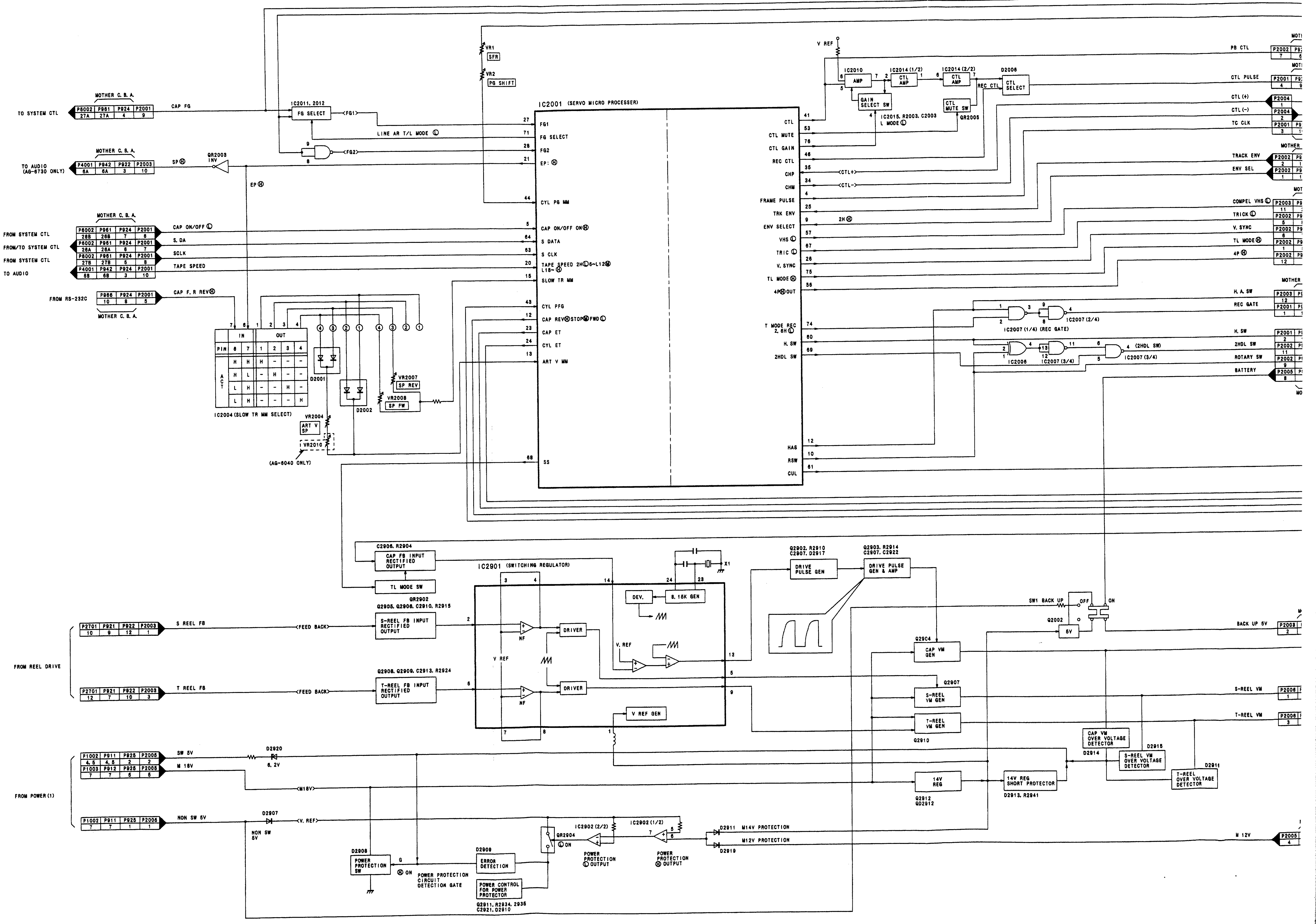

MOTHER C. B. A.
FROM REEL DRIVE
P2701 11 | P921 8 | P961 8A | P6002 8A
SF PHOTO
P2701 8 | P921 11 | P961 7A | P6002 7A
SR PHOTO
TO REEL DRIVE
P2701 14 | P921 5 | P961 12B | P6002 12B
T REEL RSF
P2701 16 | P921 3 | P961 11B | P6002 11B
S REEL RSF
TO VIDEO (2)
P8001 31A | P932 31A
TO AUDIO
P4001 7B | P942 7B
P961 22B | P6002 22B
D REC (H)
TO SERVO
P2001 6 | P924 7 | P961 26B | P6002 22B
CAP ON
5V
RESET
IC3
X1
REF OSC
IC2
RESET
IC6
P1508 5 | P6003 5
S PHOTO
P1508 6 | P6003 6
T PHOTO
SENSOR LED
S. PHOTO TR
T. PHOTO TR
P901 8 | P961 4A | P6002 4A
Q1
12V
QR1
CASSETTE SW
+5V
P1508 4 | P6003 2
DEW SENSOR
P901 5 | P961 3A | P6002 3A
Q6, Q7, D9
DEW DET.
FROM VIDEO (2)
P8001 29A | P932 29A | P961 23A | P6002 23A
PB NG (H)
P946 7 | P961 17A | P6002 17A
SERIES REC IN
IC5
P945 10 | P961 14A | P6002 14A
1SHOT IN
FROM VIDEO (3)
P3501 6A | P933 6A | P961 23B | P6002 23B
NO VIDEO (H)
SAFETY TAB SW
P901 9 | P961 28A | P6002 28A
SAFETY TAB SW
MODE SWITCH
P901 12 | P961 28B | P6002 28B
MODE PLAY
P901 15 | P961 29A | P6002 29A
MODE LOAD
P901 14 | P961 29B | P6002 29B
MODE STOP
P901 13 | P961 30A | P6002 30A
MODE EJECT
DECORDER
IC8
Q6
REEL SOLENOID
P61001 1 | P2701 1 | P921 18 | P961 5B | P6002 5B
REEL DRIVE
REEL SOL.
QR6, D10, Q2~Q5
REEL SOL. DRIVE
P945 5 | P961 11A | P6002 11A
ALARM IN Ⓛ
REER JACK
REMOTE IN
P4905 7 | P4901 9 | P943 9 | P961 18A | P6002 18A
REMOTE IN
IC4, D2
REMOTE CONVERTER
FROM SERVO
P2001 3 | P924 10 | P961 19B | P6002 19B
TC CLK
P2001 2 | P924 11 | P961 25B | P6002 25B
H SW
IC7
FROM SERVO
P2001 1 | P924 12 | P932 30A | P961 24A | P6002 24A
REC GATE (L)

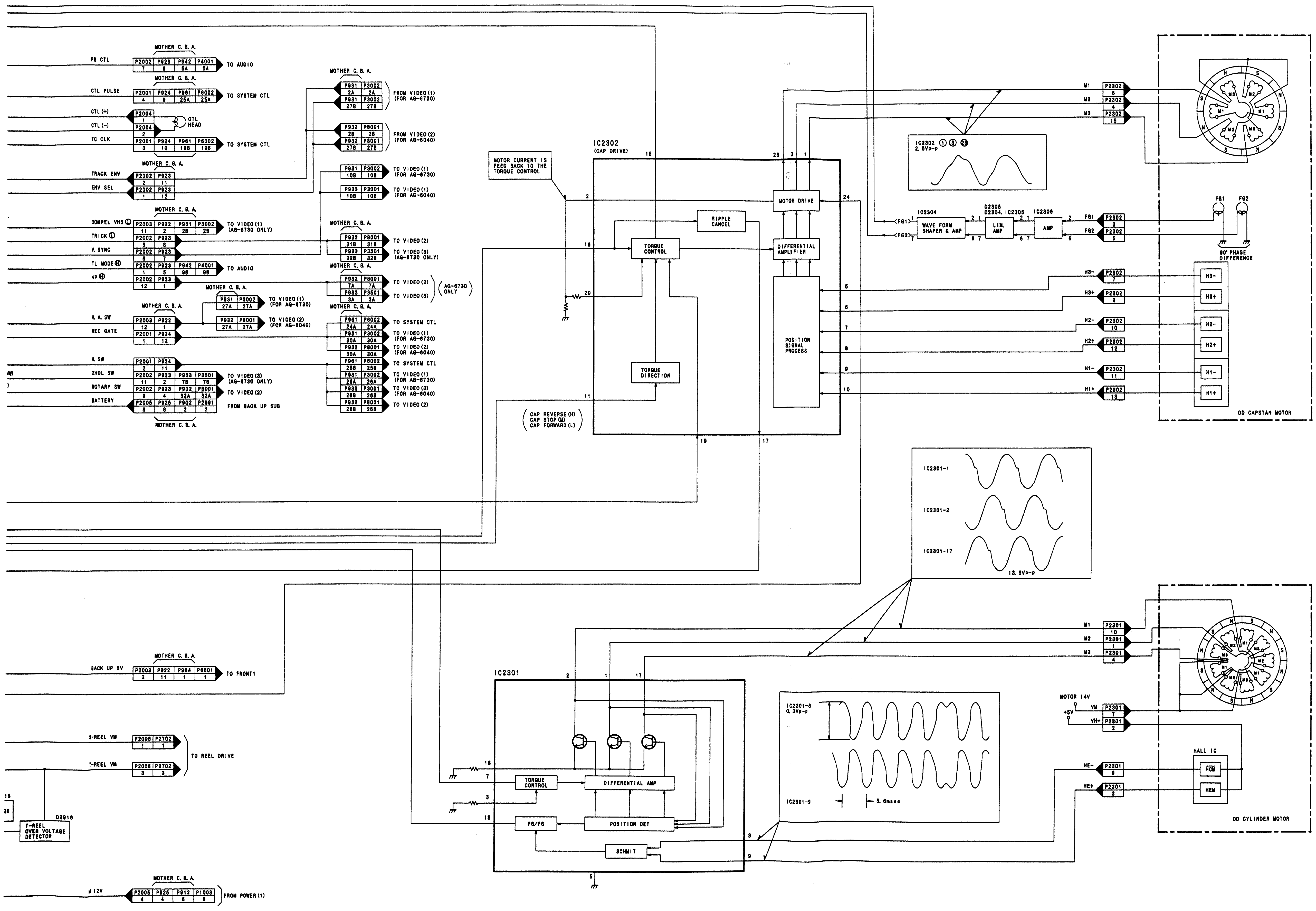

IC1
IC2501
IC2505
TP2501
IC2506
IC2503
IC2502
IC2507
IC11
V. REF
QR7
QR9
+12V
A5V
QR2501
QR2502
QR2503
QR2504
QR2505
RESET
IC3
IC2
X1
REF OSC
5V
IC5
DECORDER
IC8
QR6, D10, Q2-Q5
REEL SOL. DRIVE
IC10
LOADING MOTOR DRIVE
QR8
SPEED CONTROL
AG-6730 ONLY
IC201
LATCH
LE
HUMID
D REC
REC REVIEW
V CNT
AG-6040 ONLY
J9
QR6202
QR6203
QR6204
QR6201
IC202
EE L
EX REC L
MUTE
TAPE END
WARNING
A. R. SEL
A. RECOVER
A. OUT
QR6205
QR6206
QR6207
QR6208
QR6209
QR6210
IC7
IC9
MM
QR3
QR4
QR5
QR6
S-REEL ET
V-REF
T-REEL ET
CHANGE
TQU
MOTHER C. B. A.
TO REEL DRIVE
POWER OFF (L)
BIAS PRTCT
TO POWER SUPPLY
TO AUDIO
LOADING Ⓜ -
LOADING Ⓜ +
LOADING MOTOR
SDA F
SCK F
SDA S
SCK S
CAP ON
CAP FG
CTL
SUPPLY REEL FG
TAKE UP REEL FG
TO FRONT (1)
TO SERVO
FROM SERVO
FROM REEL DRIVE
HUMID OUT
REC OUT
REC REVIEW OUT
SERIES REC
FOR AG-6040 TO VIDEO (2)
FOR AG-6730 TO VIDEO (1)
TAPE END OUT
WARNING OUT
ALARM RESET IN
ALARM RECOVER OUT
ALARM OUT
CAMERA SW OUT
CAMERA SW OUT
1 ALARM IN
2 COM
3 ALARM RESET IN
4 ALARM RECOVER OUT
5 ALARM OUT
6 1 SHOT IN
7 COM
8 TAPE END OUT
9 WARNING OUT
10 HUMID OUT
11 REC OUT
12 REC REVIEW OUT
13 SERIES REC IN
14 SERIES REC OUT
15 TIME ADJUST IN
16 TIME ADJUST OUT
FOR AG-6730 ONLY
J4915
P4903
P4904
REAR JACK C. B. A. REF. NO. 4900 SERIES
REF. NO. 6000 SERIES

IC1

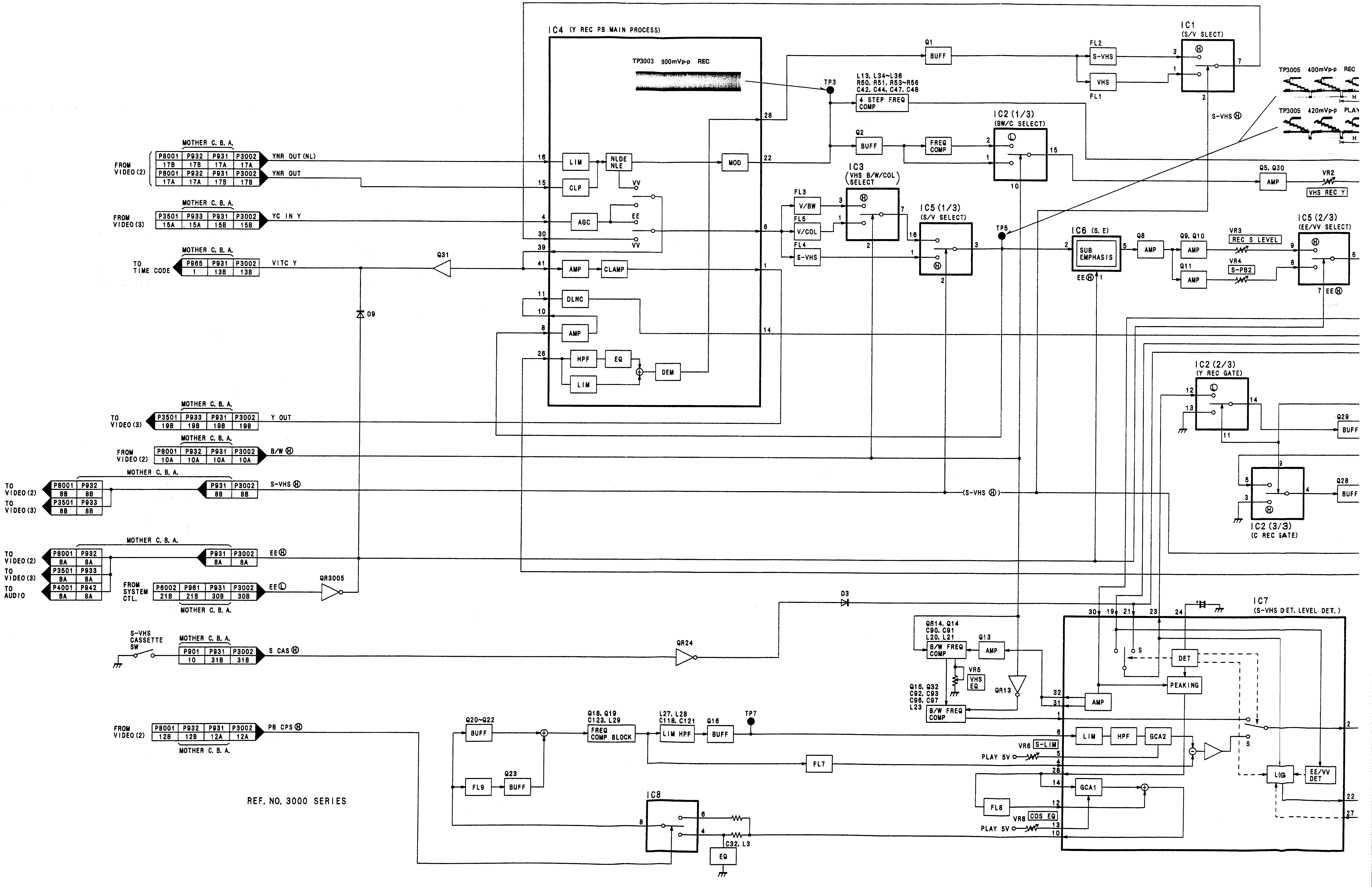
PIN	PORT	FUNCTION	ACTIVE		FUNCTION	PORT	PIN
3	P63	T REEL RSF	L/H	L	CNT1	P30	47
4	P62			L	CNT2	P31	46
5	P61	S REEL RSF	L/H	H	CNT3	P32	45
6	P60			H	CNT4	P33	44
7	P57	D REC	H	H	CNT5	P64	2
11	P53	RESET	L	-	S DAC	A04	66
15	EX1	GND	GND	-	T DAC	A05	65
31	OSC2	REF. OSC	-	-	SF AD	A02	68
32	OSC1		-	-	SR AD	A03	67
33	VSS	GND	GND	-	AD2	A06	64
34	X1	GND	GND	-	AD3	A07	63
16	RST	RESET	L	+5V	+5V	AVDD	72
17	P47	CAP ON	H	+5V	V REF	V REF	71
36	P17	SUPPLY PHOTO	-	+2V	V REF	V REF	62
37	P16	TAKE UP PHOTO	-	GND	GND	AVSS	60
84	P66	SENSOR LED	-	-	NC	S/H	61
69	P01	CASSETTE SW	L	L	POWER L	P93	56
70	A00	DEW	H	-	BIAS	P94	55
38	P15	PB NG	H	H	UNLOADING	P92	57
39	P14	SERIES IN		H	LOADING	P91	58
40	P13	MODE POSITION	L	H	SPEED DOWN	P90	59
41	P12		L	-	SDA (FRONT)	P96	53
42	P11		L	-	SCK (FRONT)	P97	52
43	P10		L	-	SDA (SERVO)	PSBTO	49
21	P43	MATRIX	-	-	SCK (SERVO)	SBIO	48
83	P67	REEL SOLENOID	H	H	CAP ON/OFF	P47	17
24	P40	ALARM IN	L	-	CAP FG	P22	28
29	P21	REMOTE IN	H	-	CTL PULSE	P20	30
27	P24	H SW/TC CL	-	-	S REEL FG	P26	25
				-	T REEL FG	P25	26
				-	D0	P70	81
				-	D1	P71	80
				-	D2	P72	79
				-	D3	P73	78
				-	D4	P74	77
				-	D5	P75	76
				-	D6	P76	75
				-	D7	P77	74
				L	$\overline{\text{SELECT}}$	P42	22
				L	SELECT	P43	21
				H	ALARM	P41	23
				H	C TYPE1	P44	20
				-	C CNT	P45	19
				H	2H6H	P46	18

SERVO BLOCK DIAGRAM


TO SYSTEM CTL
MOTHER C. B. A.
P6002 P961 P924 P2001
CAP FG
TO AUDIO (AG-6730 ONLY)
P4001 P942 P922 P2003
SP Ⓗ
QR2003 INV
EP Ⓗ
FROM SYSTEM CTL
FROM/TO SYSTEM CTL
FROM SYSTEM CTL
TO AUDIO
CAP ON/OFF Ⓛ
S. DA
SCLK
TAPE SPEED
FROM RS-232C
P966 P924 P2001
CAP F. R REV Ⓗ
IC2011, 2012
FG SELECT
<FG1>
<FG2>
LINE AR T/L MODE Ⓛ
VR1 SFR
VR2 PG SHIFT
IC2001 (SERVO MICRO PROCESSOR)
FG1
FG SELECT
FG2
EP: Ⓗ
CYL PG MM
CAP ON/OFF ON Ⓗ
S DATA
S CLK
TAPE SPEED 2H Ⓛ 6-L12 Ⓗ L18- Ⓗ
SLOW TR MM
CYL PFG
CAP REV Ⓗ STOP Ⓜ FWD Ⓛ
CAP ET
CYL ET
ART V MM
SS
CTL
CTL MUTE
CTL GAIN
REC CTL
CHP
CHM
FRAME PULSE
TRK ENV
ENV SELECT
VHS Ⓛ
TRIC Ⓛ
V. SYNC
TL MODE Ⓗ
4P Ⓗ OUT
T MODE REC 2, 6H Ⓛ
H. SW
2HDL SW
HAS
RSW
CUL
<CTL+>
<CTL->
2H Ⓗ
V REF
IC2010 AMP
IC2014 (1/2) CTL AMP
IC2014 (2/2) CTL AMP
D2006 CTL SELECT
REC CTL
GAIN SELECT SW
CTL MUTE SW
QR2005
IC2015, R2003, C2003 L MODE Ⓛ
PB CTL
CTL PULSE
CTL (+)
CTL (-)
TC CLK
TRACK ENV
ENV SEL
COMPEL VHS Ⓛ
TRICK Ⓛ
V. SYNC
TL MODE Ⓗ
4P Ⓗ
H. A. SW
REC GATE
IC2007 (1/4) (REC GATE)
IC2007 (2/4)
H. SW
2HDL SW
ROTARY SW
BATTERY
IC2006
IC2007 (3/4)
IC2007 (3/4)
(2HDL SW)
IN OUT
PIN 8 7 1 2 3 4
ACT
IC2004 (SLOW TR MM SELECT)
D2001
D2002
VR2007 SP REV
VR2008 SP FW
VR2004 ART V SP
VR2010
(AG-6040 ONLY)
C2906, R2904
CAP FB INPUT RECTIFIED OUTPUT
TL MODE SW
QR2902
Q2905, Q2906, C2910, R2915
S-REEL FB INPUT RECTIFIED OUTPUT
Q2908, Q2909, C2913, R2924
T-REEL FB INPUT RECTIFIED OUTPUT
FROM REEL DRIVE
P2701 P921 P922 P2003
S REEL FB
T REEL FB
<FEED BACK>
IC2901 (SWITCHING REGULATOR)
DEV.
8. 15K GEN
X1
DRIVER
V REF
NF
V REF GEN
Q2902, R2910 C2907, D2917
DRIVE PULSE GEN
Q2903, R2914 C2907, C2922
DRIVE PULSE GEN & AMP
Q2904 CAP VM GEN
Q2907 S-REEL VM GEN
T-REEL VM GEN
Q2910
SW1 BACK UP
OFF ON
Q2002 5V
BACK UP 5V
S-REEL VM
T-REEL VM
P2008
P2006
CAP VM OVER VOLTAGE DETECTOR
D2914
D2915
S-REEL VM OVER VOLTAGE DETECTOR
T-REEL OVER VOLTAGE DETECTOR
14V REG
Q2912 QD2912
14V REG SHORT PROTECTOR
D2913, R2941
FROM POWER (1)
P1002 P911 P925 P2005
P1003 P912 P925 P2005
SW 5V
M 18V
D2920 6. 2V
<M18V>
NON SW 5V
D2907
<V. REF>
NON SW 5V
D2908 POWER PROTECTION SW
Ⓗ ON
POWER PROTECTION CIRCUIT DETECTION GATE
D2909 ERROR DETECTION
POWER CONTROL FOR POWER PROTECTOR
Q2911, R2934, 2935 C2921, D2910
QR2904
Ⓛ ON
IC2902 (2/2)
IC2902 (1/2)
POWER PROTECTION Ⓛ OUTPUT
POWER PROTECTION Ⓗ OUTPUT
D2911 M14V PROTECTION
M12V PROTECTION
D2919
M 12V
P2005

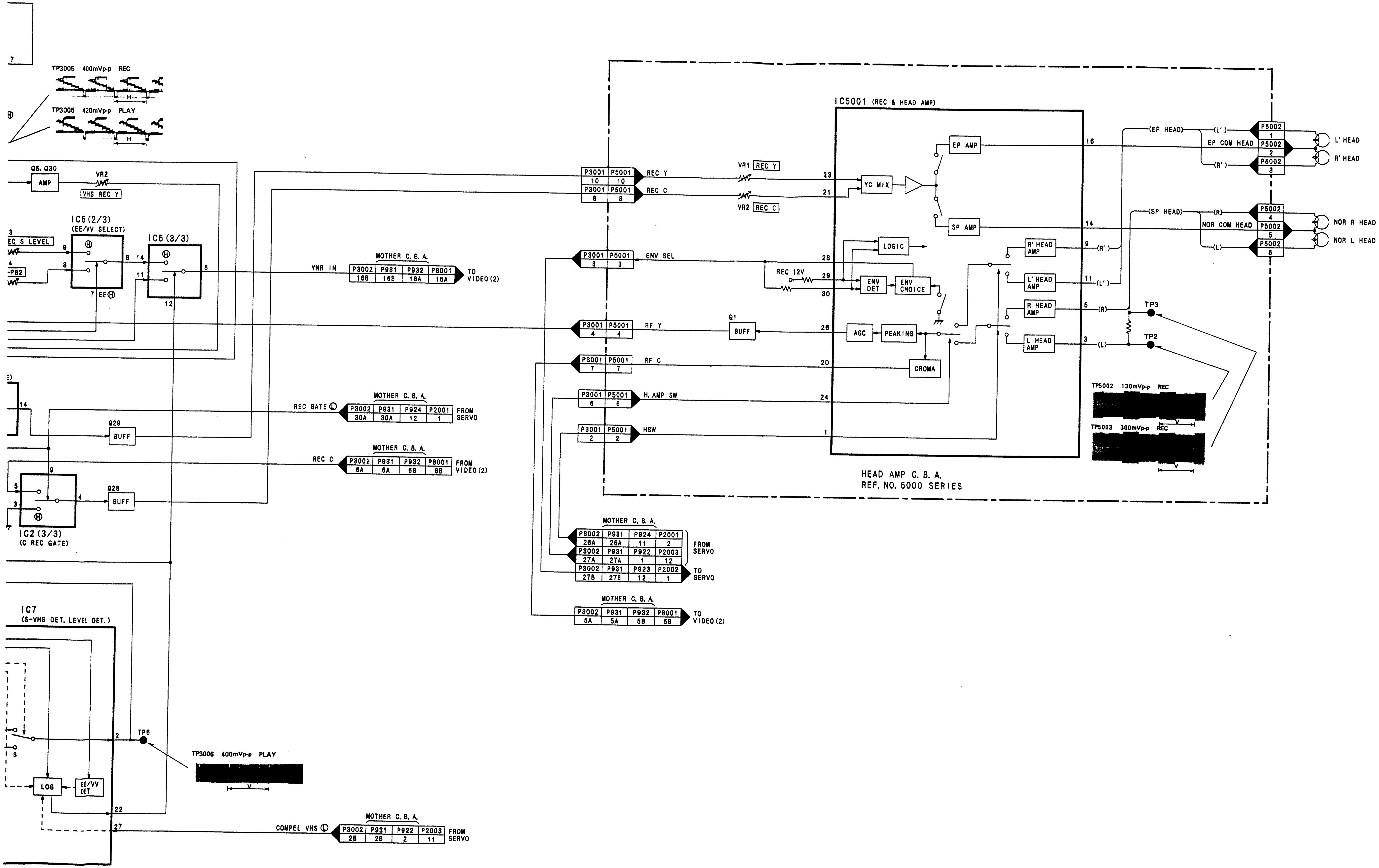

PB CTL
MOTHER C. B. A.
P2002 7 | P923 6 | P942 5A | P4001 5A
TO AUDIO
CTL PULSE
P2001 4 | P924 9 | P961 25A | P6002 25A
TO SYSTEM CTL
CTL (+)
P2004 1
CTL (−)
P2004 2
CTL HEAD
TC CLK
P2001 3 | P924 10 | P961 19B | P6002 19B
TO SYSTEM CTL
TRACK ENV
P2002 2 | P923 11
ENV SEL
P2002 1 | P923 12
COMPEL VHS Ⓛ
P2003 11 | P922 2 | P931 28 | P3002 28
TO VIDEO (1) (AG-6730 ONLY)
TRICK Ⓛ
P2002 5 | P923 8
V. SYNC
P2002 6 | P923 7
TL MODE Ⓗ
P2002 1 | P923 5 | P942 9B | P4001 9B
TO AUDIO
4P Ⓗ
P2002 12 | P923 1
H. A. SW
P2003 12 | P922 1
REC GATE
P2001 1 | P924 12
H. SW
P2001 2 | P924 11
2HDL SW
P2002 11 | P923 2 | P933 7B | P3501 7B
TO VIDEO (3) (AG-6730 ONLY)
ROTARY SW
P2002 9 | P923 4 | P932 32A | P8001 32A
TO VIDEO (2)
BATTERY
P2005 8 | P925 8 | P902 2 | P2991 2
FROM BACK UP SUB
P931 2A | P3002 2A
P931 27B | P3002 27B
FROM VIDEO (1) (FOR AG-6730)
P932 28 | P8001 28
P932 27B | P8001 27B
FROM VIDEO (2) (FOR AG-6040)
P931 10B | P3002 10B
TO VIDEO (1) (FOR AG-6730)
P933 10B | P3001 10B
TO VIDEO (1) (FOR AG-6040)
P932 31B | P8001 31B
TO VIDEO (2)
P933 32B | P3501 32B
TO VIDEO (3) (AG-6730 ONLY)
P932 7A | P8001 7A
TO VIDEO (2)
P933 3A | P3501 3A
TO VIDEO (3)
(AG-6730 ONLY)
P931 27A | P3002 27A
TO VIDEO (1) (FOR AG-6730)
P932 27A | P8001 27A
TO VIDEO (2) (FOR AG-6040)
P961 24A | P6002 24A
TO SYSTEM CTL
P931 30A | P3002 30A
TO VIDEO (1) (FOR AG-6730)
P932 30A | P8001 30A
TO VIDEO (2) (FOR AG-6040)
P961 25B | P6002 25B
TO SYSTEM CTL
P931 26A | P3002 26A
TO VIDEO (1) (FOR AG-6730)
P933 26B | P3001 26B
TO VIDEO (3) (FOR AG-6040)
P932 26B | P8001 26B
TO VIDEO (2)
MOTOR CURRENT IS FEED BACK TO THE TORQUE CONTROL
IC2302 (CAP DRIVE)
15
23
3
1
2
24
16
20
11
19
17
5
6
7
8
9
10
RIPPLE CANCEL
TORQUE CONTROL
MOTOR DRIVE
DIFFERENTIAL AMPLIFIER
POSITION SIGNAL PROCESS
TORQUE DIRECTION
CAP REVERSE (H)
CAP STOP (M)
CAP FORWARD (L)
IC2302 ① ③ ㉓
2. 5Vp-p
M1 P2302 6
M2 P2302 4
M3 P2302 15
N S N S N S
M1 M2 M3
IC2304
WAVE FORM SHAPER & AMP
D2305 D2304, IC2305
LIM. AMP
IC2306
AMP
<FG1>
<FG2>
FG1 P2302 3
FG2 P2302 5
FG1
FG2
90° PHASE DIFFERENCE
H3− P2302 7
H3+ P2302 9
H2− P2302 10
H2+ P2302 12
H1− P2302 11
H1+ P2302 13
H3−
H3+
H2−
H2+
H1−
H1+
DD CAPSTAN MOTOR
IC2301-1
IC2301-2
IC2301-17
13. 5Vp-p
BACK UP 5V
P2003 2 | P922 11 | P964 1 | P6601 1
TO FRONT1
S-REEL VM
P2006 1 | P2702 1
T-REEL VM
P2006 3 | P2702 3
TO REEL DRIVE
D2916
T-REEL OVER VOLTAGE DETECTOR
M 12V
P2005 4 | P925 4 | P912 6 | P1003 6
FROM POWER (1)
IC2301
2
1
17
18
7
3
15
8
9
5
TORQUE CONTROL
DIFFERENTIAL AMP
PG/FG
POSITION DET
SCHMIT
IC2301-3
0. 3Vp-p
IC2301-9
5. 6msec
M1 P2301 10
M2 P2301 1
M3 P2301 4
MOTOR 14V
+5V
VM P2301 7
VH+ P2301 2
HE− P2301 9
HE+ P2301 3
HALL IC
HCM
HEM
DD CYLINDER MOTOR

VIDEO (1) BLOCK DIAGRAM

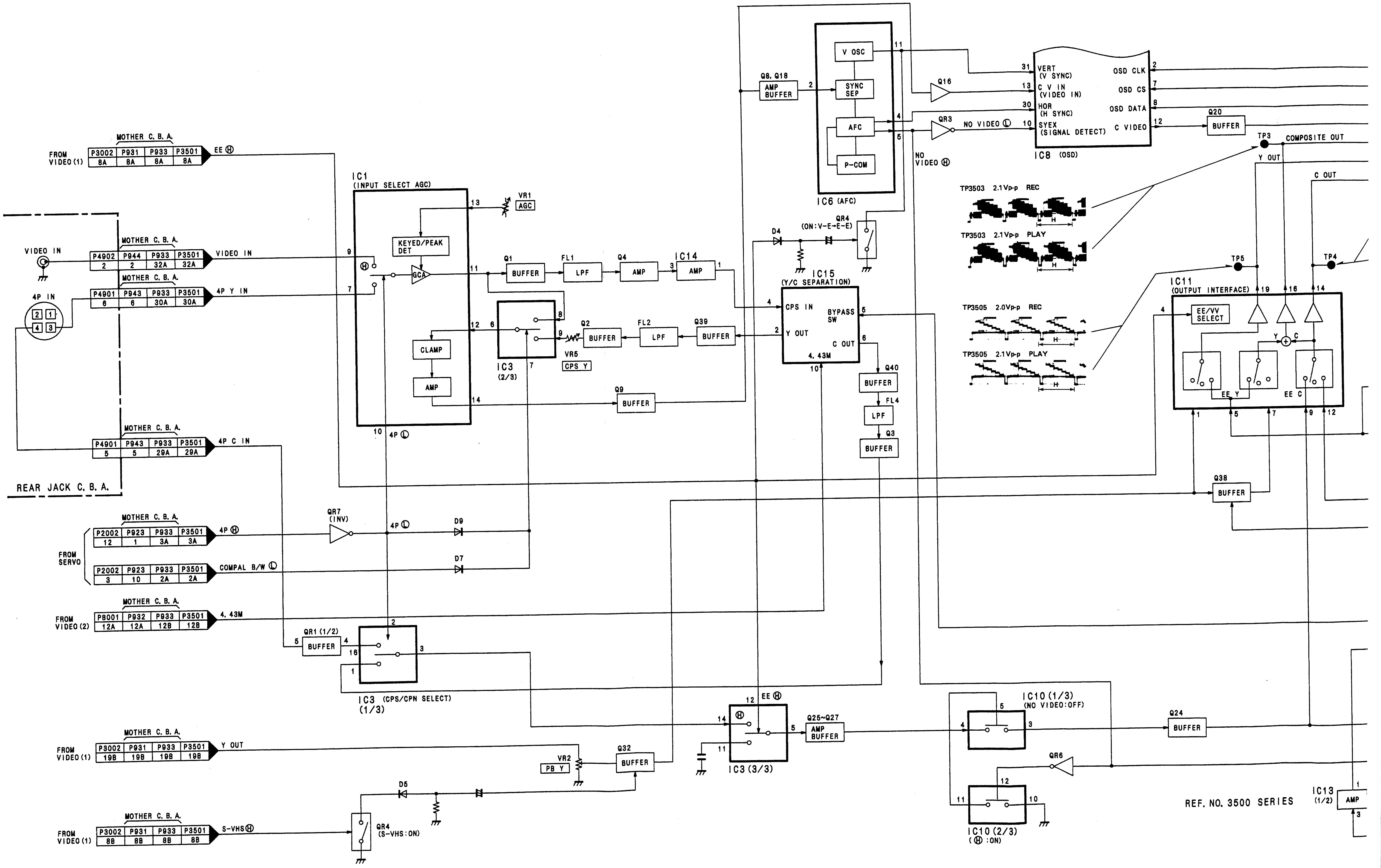


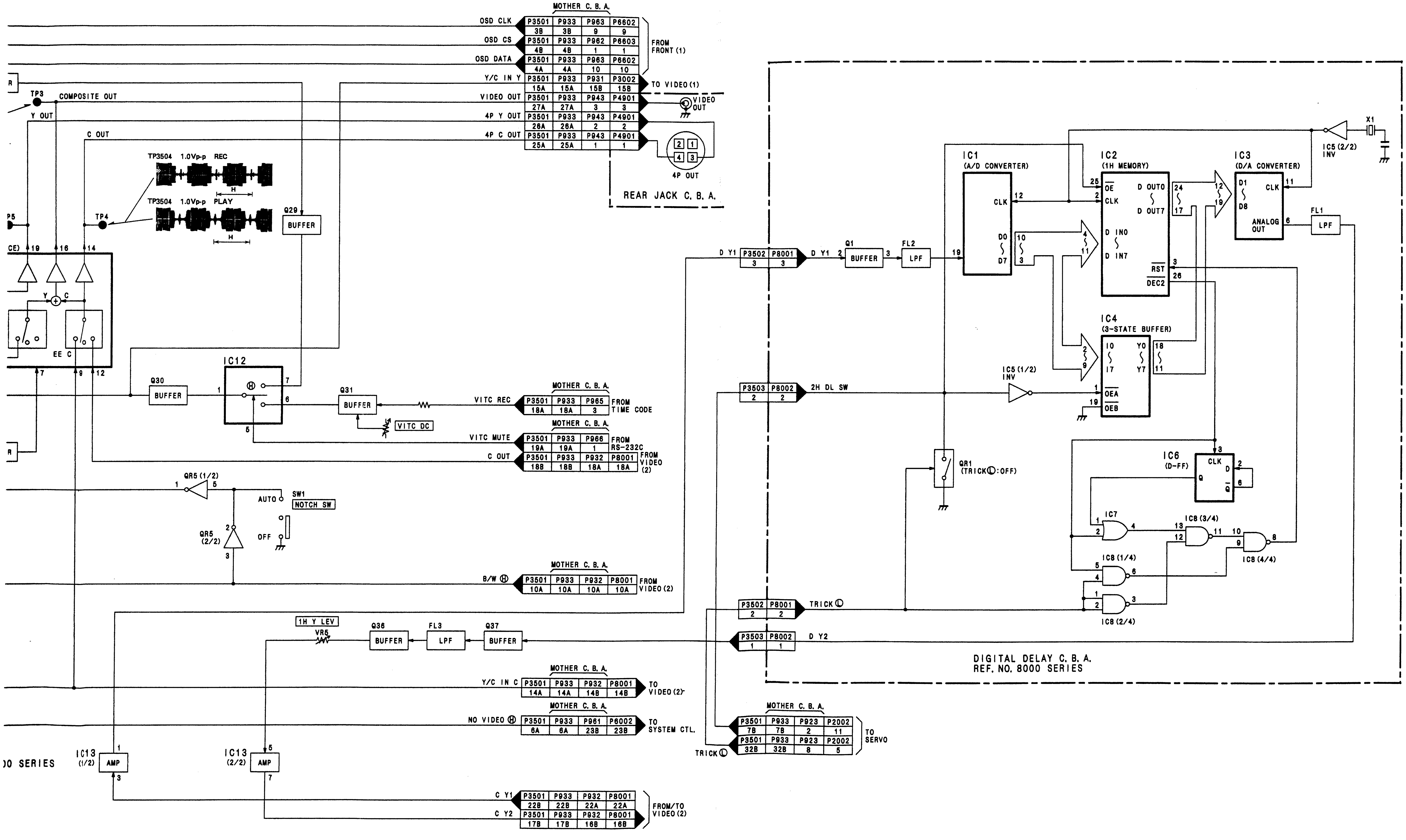
IC4 (Y REC PB MAIN PROCESS)
TP3003 900mVp-p REC
LIM
NLDE NLE
MOD
CLP
AGC
EE
VV
AMP
CLAMP
DLNC
HPF
EQ
DEM
MOTHER C. B. A.
FROM VIDEO (2)
P8001 P932 P931 P3002
YNR OUT (NL)
YNR OUT
FROM VIDEO (3)
P3501 P933 P931 P3002
YC IN Y
TO TIME CODE
P965 P931 P3002
VITC Y
Q31
D9
TO VIDEO (3)
Y OUT
B/W Ⓗ
TO VIDEO (2)
TO VIDEO (3)
S-VHS Ⓗ
TO AUDIO
EE Ⓗ
FROM SYSTEM CTL.
P6002 P961 P931 P3002
EE Ⓛ
QR3005
S-VHS CASSETTE SW
P901 P931 P3002
S CAS Ⓗ
QR24
D3
PB CPS Ⓗ
Q20~Q22 BUFF
FL9
Q23 BUFF
Q18, Q19 C123, L29 FREQ COMP BLOCK
L27, L28 C118, C121 LIM HPF
Q16 BUFF
TP7
FL7
IC8
C32, L3
EQ
TP3
Q1 BUFF
L13, L34~L36 R50, R51, R53~R56 C42, C44, C47, C48
4 STEP FREQ COMP
Q2 BUFF
FREQ COMP
IC2 (1/3) (BW/C SELECT)
IC3 (VHS B/W/COL SELECT)
FL3 V/BW
FL5 V/COL
FL4 S-VHS
IC5 (1/3) (S/V SELECT)
TP5
FL2 S-VHS
FL1 VHS
IC1 (S/V SLECT)
S-VHS Ⓗ
TP3005 400mVp-p REC
TP3005 420mVp-p PLAY
Q5, Q30 AMP
VR2 VHS REC Y
IC6 (S. E) SUB EMPHASIS
EE Ⓗ
Q8 AMP
Q9, Q10 AMP
Q11 AMP
VR3 REC S LEVEL
VR4 S-PB2
IC5 (2/3) (EE/VV SELECT)
EE Ⓗ
IC2 (2/3) (Y REC GATE)
Q29 BUFF
IC2 (3/3) (C REC GATE)
Q28 BUFF
(S-VHS Ⓗ)
IC7 (S-VHS DET, LEVEL DET.)
QR14, Q14 C90, C91 L20, L21 B/W FREQ COMP
Q13 AMP
VR5 VHS EQ
QR13
Q15, Q32 C92, C93 C96, C97 L23 B/W FREQ COMP
VR6 S-LIM
PLAY 5V
FL8
VR8 COS EQ
PLAY 5V
AMP
DET
PEAKING
LIM
HPF
GCA2
GCA1
LIG
EE/VV DET

REF. NO. 3000 SERIES

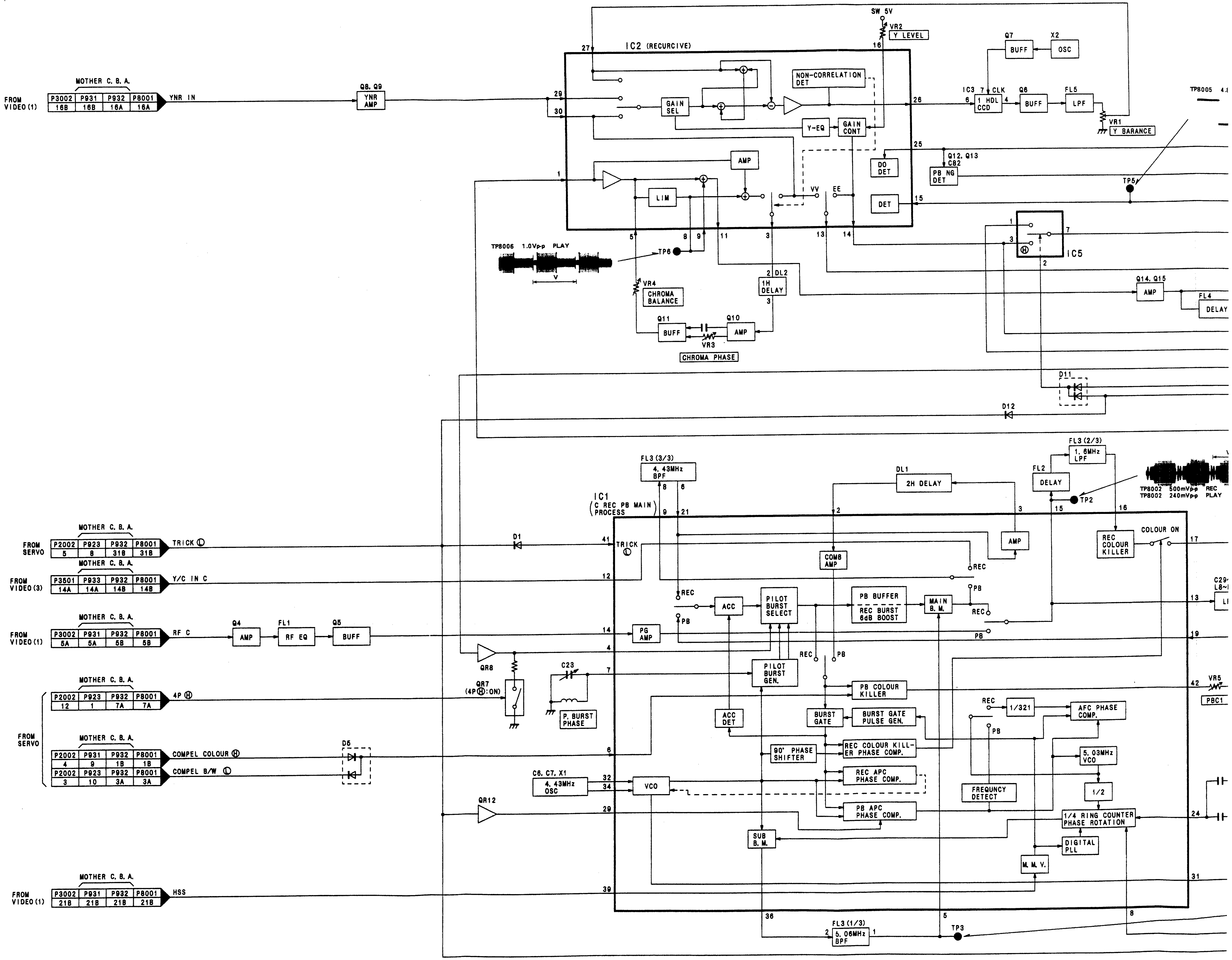

TP3005 400mVp-p REC
TP3005 420mVp-p PLAY
H
Q5, Q30
AMP
VR2
VHS REC Y
IC5 (2/3)
(EE/VV SELECT)
IC5 (3/3)
EC S LEVEL
-PB2
EE
YNR IN
MOTHER C. B. A.
P3002 16B
P931 16B
P932 16A
P8001 16A
TO VIDEO (2)
IC5001 (REC & HEAD AMP)
P3001 P5001 10 10
REC Y
P3001 P5001 8 8
REC C
VR1 REC Y
VR2 REC C
YC MIX
EP AMP
SP AMP
LOGIC
ENV DET
ENV CHOICE
REC 12V
AGC
PEAKING
CROMA
R' HEAD AMP
L' HEAD AMP
R HEAD AMP
L HEAD AMP
P3001 P5001 3 3
ENV SEL
P3001 P5001 4 4
RF Y
Q1
BUFF
P3001 P5001 7 7
RF C
P3001 P5001 6 6
H. AMP SW
P3001 P5001 2 2
HSW
(EP HEAD)
(L')
EP COM HEAD
(R')
(SP HEAD)
(R)
NOR COM HEAD
(L)
P5002 1
P5002 2
P5002 3
P5002 4
P5002 5
P5002 6
L' HEAD
R' HEAD
NOR R HEAD
NOR L HEAD
TP3
TP2
TP5002 130mVp-p REC
TP5003 300mVp-p REC
V
HEAD AMP C. B. A.
REF. NO. 5000 SERIES
REC GATE Ⓛ
P3002 30A
P931 30A
P924 12
P2001 1
FROM SERVO
Q29
BUFF
REC C
P3002 6A
P931 6A
P932 6B
P8001 6B
FROM VIDEO (2)
Q28
BUFF
IC2 (3/3)
(C REC GATE)
P3002 26A
P931 26A
P924 11
P2001 2
P3002 27A
P931 27A
P922 1
P2003 12
FROM SERVO
P3002 27B
P931 27B
P923 12
P2002 1
TO SERVO
P3002 5A
P931 5A
P932 5B
P8001 5B
TO VIDEO (2)
IC7
(S-VHS DET. LEVEL DET.)
TP6
S
LOG
EE/VV DET
TP3006 400mVp-p PLAY
V
COMPEL VHS Ⓛ
P3002 2B
P931 2B
P922 2
P2003 11
FROM SERVO

VIDEO (3) BLOCK DIAGRAM

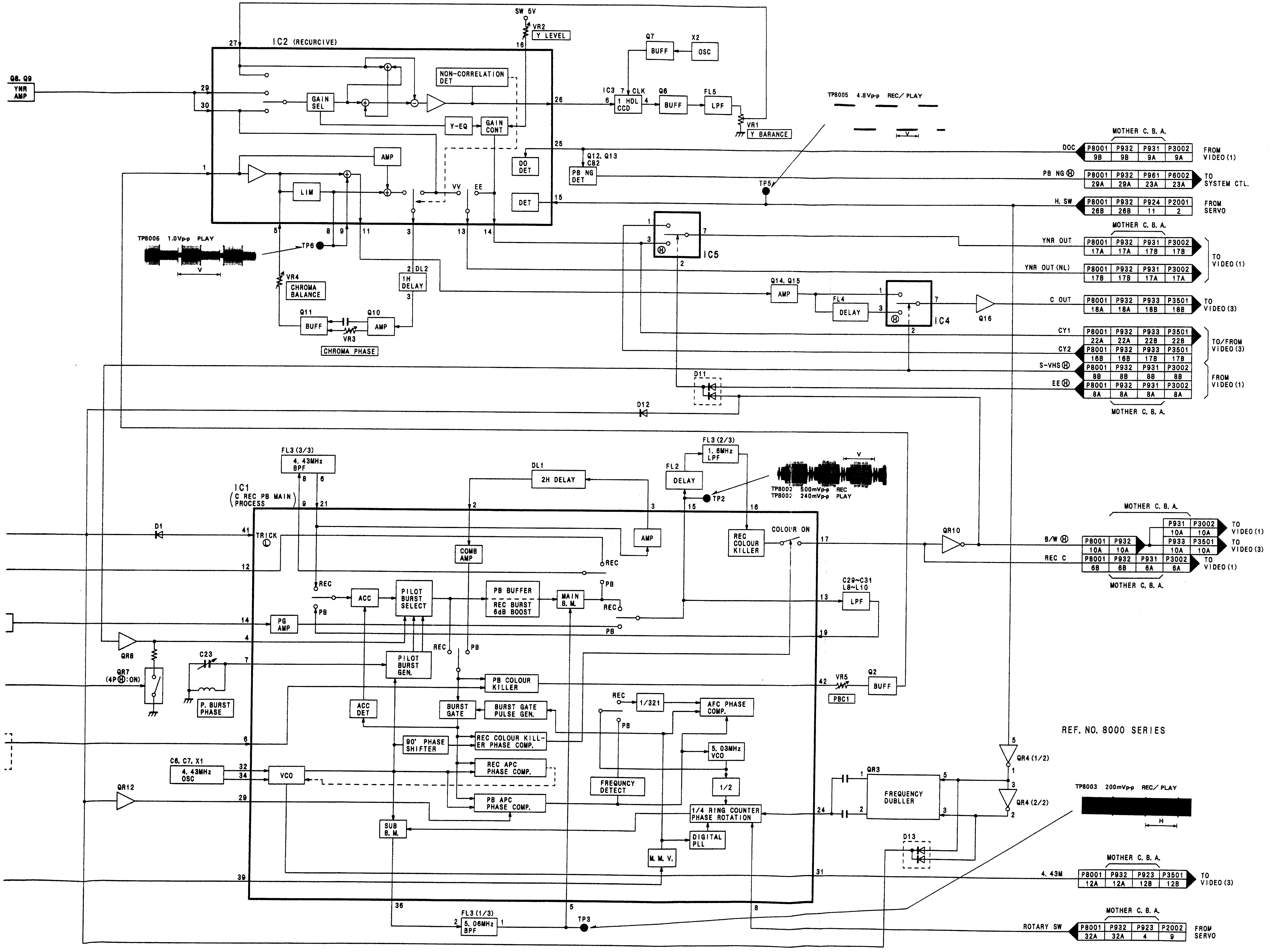

FROM VIDEO (1)
MOTHER C. B. A.
P3002 8A P931 8A P933 8A P3501 8A
EE Ⓗ
VIDEO IN
P4902 2 P944 2 P933 32A P3501 32A
4P IN
P4901 6 P943 6 P933 30A P3501 30A
4P Y IN
P4901 5 P943 5 P933 29A P3501 29A
4P C IN
REAR JACK C. B. A.
FROM SERVO
P2002 12 P923 1 P933 3A P3501 3A
4P Ⓗ
P2002 3 P923 10 P933 2A P3501 2A
COMPAL B/W Ⓛ
FROM VIDEO (2)
P8001 12A P932 12A P933 12B P3501 12B
4. 43M
P3002 19B P931 19B P933 19B P3501 19B
Y OUT
P3002 8B P931 8B P933 8B P3501 8B
S-VHS Ⓗ
IC1 (INPUT SELECT AGC)
KEYED/PEAK DET
GCA
CLAMP
AMP
VR1 AGC
4P Ⓛ
Q1 BUFFER
FL1 LPF
Q4 AMP
IC14 AMP
IC3 (2/3)
Q2 BUFFER
FL2 LPF
Q39 BUFFER
VR5 CPS Y
Q9 BUFFER
QR7 (INV)
D9
D7
QR1 (1/2) BUFFER
IC3 (CPS/CPN SELECT) (1/3)
VR2 PB Y
Q32 BUFFER
D5
QR4 (S-VHS:ON)
Q8, Q18 AMP BUFFER
V OSC
SYNC SEP
AFC
P-COM
IC6 (AFC)
Q16
QR3
NO VIDEO Ⓛ
NO VIDEO Ⓗ
QR4 (ON:V-E→E-E)
D4
IC15 (Y/C SEPARATION)
CPS IN
BYPASS SW
Y OUT
C OUT
4. 43M
Q40 BUFFER
FL4 LPF
Q3 BUFFER
IC3 (3/3)
EE Ⓗ
Q25~Q27 AMP BUFFER
IC10 (1/3) (NO VIDEO:OFF)
IC10 (2/3) (Ⓗ:ON)
QR6
Q24 BUFFER
VERT (V SYNC)
C V IN (VIDEO IN)
HOR (H SYNC)
SYEX (SIGNAL DETECT)
OSD CLK
OSD CS
OSD DATA
C VIDEO
IC8 (OSD)
Q20 BUFFER
TP3
COMPOSITE OUT
Y OUT
C OUT
TP3503 2.1Vp-p REC
TP3503 2.1Vp-p PLAY
TP3505 2.0Vp-p REC
TP3505 2.1Vp-p PLAY
H
TP5
TP4
IC11 (OUTPUT INTERFACE)
EE/VV SELECT
EE Y
EE C
Y
C
Q38 BUFFER
IC13 (1/2) AMP
REF. NO. 3500 SERIES


MOTHER C. B. A.
OSD CLK
P3501 P933 P963 P6602
3B 3B 9 9
OSD CS
P3501 P933 P962 P6603
4B 4B 1 1
OSD DATA
P3501 P933 P963 P6602
4A 4A 10 10
FROM FRONT (1)
Y/C IN Y
P3501 P933 P931 P3002
15A 15A 15B 15B
TO VIDEO (1)
VIDEO OUT
P3501 P933 P943 P4901
27A 27A 3 3
VIDEO OUT
4P Y OUT
P3501 P933 P943 P4901
26A 26A 2 2
4P C OUT
P3501 P933 P943 P4901
25A 25A 1 1
4P OUT
REAR JACK C. B. A.
TP3
COMPOSITE OUT
Y OUT
C OUT
TP3504 1.0Vp-p REC
TP3504 1.0Vp-p PLAY
H
TP4
P5
Q29
BUFFER
CE)
19
16
14
Y
C
EE C
7
9
12
Q30
BUFFER
IC12
1
7
6
5
Q31
BUFFER
VITC DC
MOTHER C. B. A.
VITC REC
P3501 P933 P965
18A 18A 3
FROM TIME CODE
MOTHER C. B. A.
VITC MUTE
P3501 P933 P966
19A 19A 1
FROM RS-232C
C OUT
P3501 P933 P932 P8001
18B 18B 18A 18A
FROM VIDEO (2)
QR5 (1/2)
1
5
AUTO
SW1
NOTCH SW
OFF
QR5 (2/2)
2
3
MOTHER C. B. A.
B/W Ⓗ
P3501 P933 P932 P8001
10A 10A 10A 10A
FROM VIDEO (2)
1H Y LEV
VR5
Q36
BUFFER
FL3
LPF
Q37
BUFFER
MOTHER C. B. A.
Y/C IN C
P3501 P933 P932 P8001
14A 14A 14B 14B
TO VIDEO (2)
MOTHER C. B. A.
NO VIDEO Ⓗ
P3501 P933 P961 P6002
6A 6A 23B 23B
TO SYSTEM CTL.
)0 SERIES
IC13 (1/2)
AMP
1
3
IC13 (2/2)
AMP
5
7
C Y1
P3501 P933 P932 P8001
22B 22B 22A 22A
C Y2
P3501 P933 P932 P8001
17B 17B 16B 16B
FROM/TO VIDEO (2)
D Y1
P3502 P8001
3 3
D Y1
2
Q1
BUFFER
3
FL2
LPF
19
IC1
(A/D CONVERTER)
CLK
12
D0
D7
10
3
IC2
(1H MEMORY)
25
2
OE
CLK
D OUT0
D OUT7
24
17
D IN0
D IN7
4
11
RST
DEC2
3
26
IC3
(D/A CONVERTER)
D1
D8
CLK
11
12
19
ANALOG OUT
6
FL1
LPF
X1
IC5 (2/2)
INV
IC4
(3-STATE BUFFER)
I0
I7
Y0
Y7
18
11
2
9
1
OEA
19
OEB
P3503 P8002
2 2
2H DL SW
IC5 (1/2)
INV
QR1
(TRICKⓁ:OFF)
IC6
(D-FF)
CLK
D
Q
Q
3
2
6
IC7
1
2
4
IC8 (3/4)
13
12
11
10
9
8
IC8 (4/4)
IC8 (1/4)
5
4
6
1
2
3
IC8 (2/4)
P3502 P8001
2 2
TRICK Ⓛ
P3503 P8002
1 1
D Y2
DIGITAL DELAY C. B. A.
REF. NO. 8000 SERIES
MOTHER C. B. A.
P3501 P933 P923 P2002
7B 7B 2 11
P3501 P933 P923 P2002
32B 32B 8 5
TO SERVO
TRICK Ⓛ

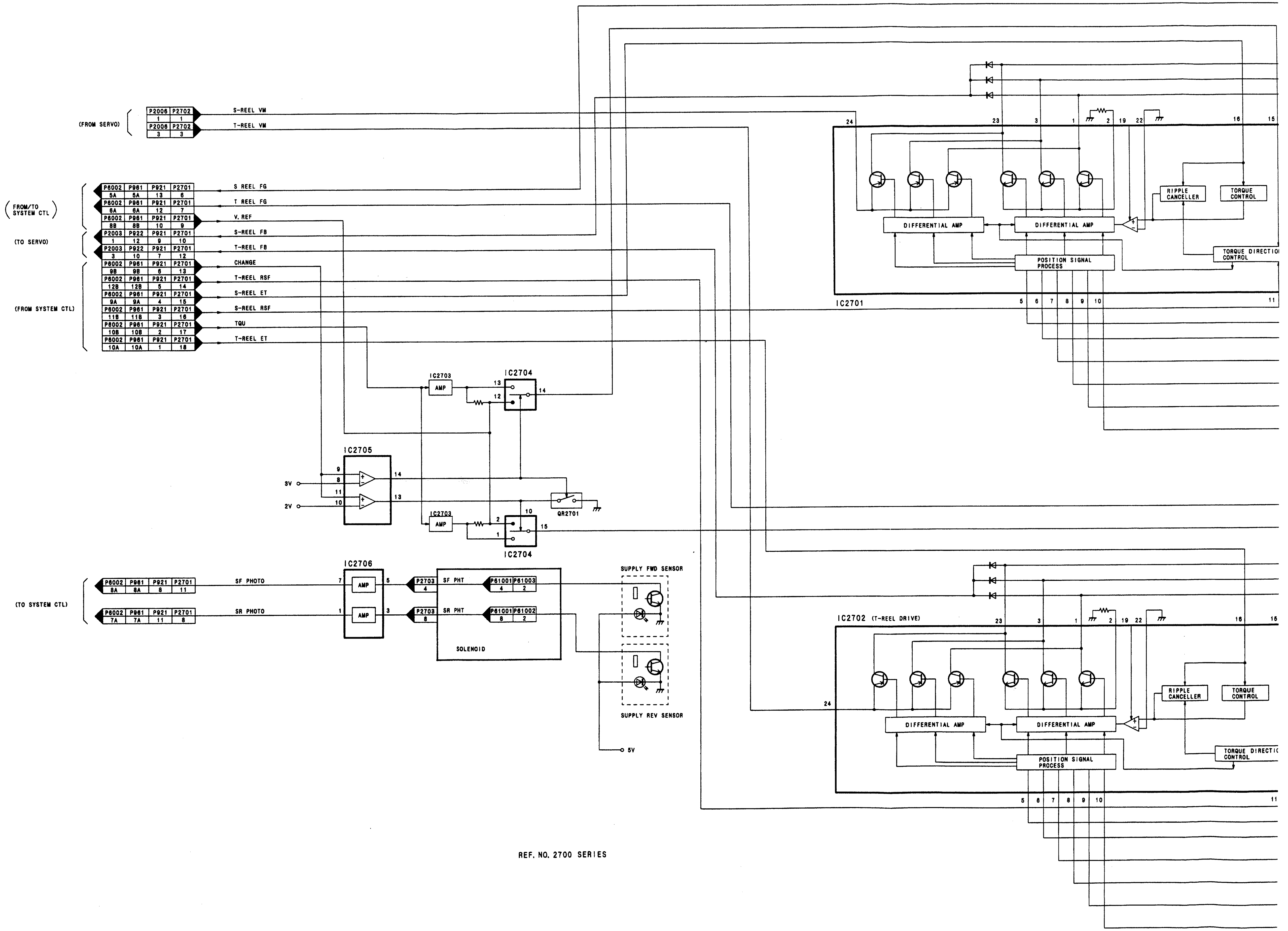
VIDEO (2) BLOCK DIAGRAM



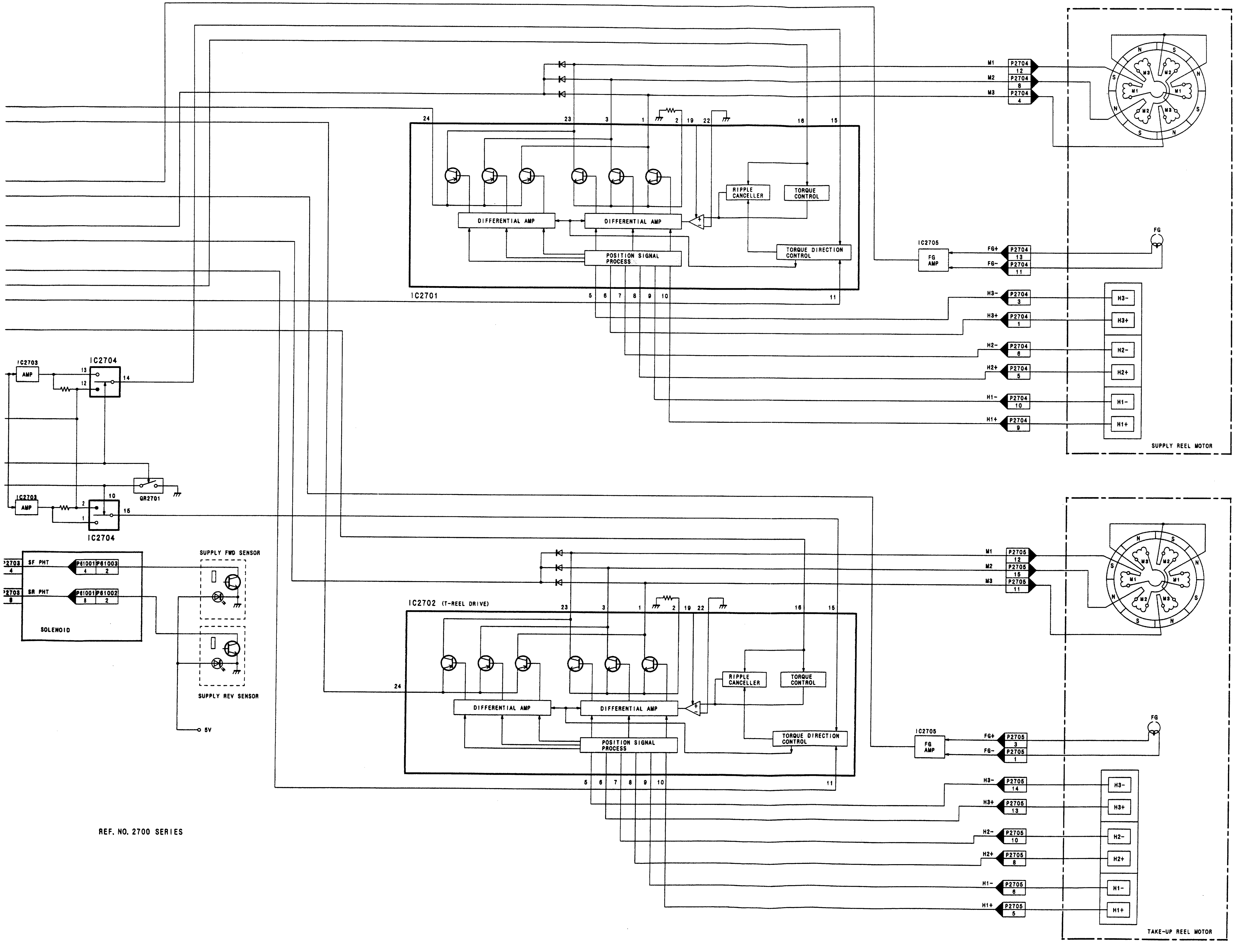
FROM VIDEO (1)
MOTHER C. B. A.
P3002 16B
P931 16B
P932 16A
P8001 16A
YNR IN
Q8, Q9
YNR AMP
SW 5V
VR2
Y LEVEL
IC2 (RECURCIVE)
GAIN SEL
NON-CORRELATION DET
Y-EQ
GAIN CONT
AMP
LIM
VV
EE
DO DET
DET
Q7
BUFF
X2
OSC
IC3
CLK
1 HDL CCD
Q6
BUFF
FL5
LPF
VR1
Y BARANCE
TP8005
Q12, Q13
C82
PB NG DET
TP5
IC5
TP8006 1.0Vp-p PLAY
TP6
VR4
CHROMA BALANCE
DL2
1H DELAY
Q11
BUFF
Q10
AMP
VR3
CHROMA PHASE
Q14, Q15
AMP
FL4
DELAY
D11
D12
FL3 (2/3)
1.6MHz LPF
FL2
DELAY
TP2
TP8002 500mVp-p REC
TP8002 240mVp-p PLAY
FL3 (3/3)
4.43MHz BPF
DL1
2H DELAY
IC1 (C REC PB MAIN PROCESS)
FROM SERVO
P2002 5
P923 8
P932 31B
P8001 31B
TRICK Ⓛ
D1
FROM VIDEO (3)
P3501 14A
P933 14A
P932 14B
P8001 14B
Y/C IN C
FROM VIDEO (1)
P3002 5A
P931 5A
P932 5B
P8001 5B
RF C
Q4
AMP
FL1
RF EQ
Q5
BUFF
QR8
QR7 (4PⒽ:ON)
C23
P. BURST PHASE
FROM SERVO
P2002 12
P923 1
P932 7A
P8001 7A
4P Ⓗ
P2002 4
P931 9
P932 1B
P8001 1B
COMPEL COLOUR Ⓗ
P2002 3
P923 10
P932 3A
P8001 3A
COMPEL B/W Ⓛ
D5
C6, C7, X1
4.43MHz OSC
QR12
FROM VIDEO (1)
P3002 21B
P931 21B
P932 21B
P8001 21B
HSS
TRICK Ⓛ
COMB AMP
AMP
REC COLOUR KILLER
COLOUR ON
ACC
PILOT BURST SELECT
PB BUFFER
REC BURST 6dB BOOST
MAIN B. M.
PG AMP
PILOT BURST GEN.
PB COLOUR KILLER
ACC DET
BURST GATE
BURST GATE PULSE GEN.
90° PHASE SHIFTER
REC COLOUR KILLER PHASE COMP.
REC APC PHASE COMP.
PB APC PHASE COMP.
VCO
SUB B. M.
1/321
AFC PHASE COMP.
5.03MHz VCO
FREQUNCY DETECT
1/2
1/4 RING COUNTER PHASE ROTATION
DIGITAL PLL
M. M. V.
VR5
PBC1
C29
FL3 (1/3)
5.06MHz BPF
TP3
REC
PB


Q8, Q9
YNR AMP
IC2 (RECURCIVE)
SW 5V
VR2 Y LEVEL
NON-CORRELATION DET
GAIN SEL
Y-EQ
GAIN CONT
AMP
LIM
DO DET
DET
VV
EE
Q7 BUFF
X2 OSC
IC3 1 HDL CCD
CLK
Q6 BUFF
FL5 LPF
VR1 Y BARANCE
TP8005 4.8Vp-p REC/PLAY
Q12, Q13 CB2
PB NG DET
TP5
TP8006 1.0Vp-p PLAY
TP6
VR4 CHROMA BALANCE
DL2 1H DELAY
Q11 BUFF
Q10 AMP
VR3 CHROMA PHASE
IC5
Q14, Q15 AMP
FL4 DELAY
IC4
Q16
MOTHER C. B. A.
DOC P8001 9B P932 9B P931 9A P3002 9A FROM VIDEO (1)
PB NG Ⓗ P8001 29A P932 29A P961 23A P6002 23A TO SYSTEM CTL.
H. SW P8001 26B P932 26B P924 11 P2001 2 FROM SERVO
YNR OUT P8001 17A P932 17A P931 17B P3002 17B
YNR OUT (NL) P8001 17B P932 17B P931 17A P3002 17A TO VIDEO (1)
C OUT P8001 18A P932 18A P933 16B P3501 16B TO VIDEO (3)
CY1 P8001 22A P932 22A P933 22B P3501 22B
CY2 P8001 16B P932 16B P933 17B P3501 17B TO/FROM VIDEO (3)
S-VHS Ⓗ P8001 8B P932 8B P931 8B P3002 8B
EE Ⓗ P8001 8A P932 8A P931 8A P3002 8A FROM VIDEO (1)
D11
D12
FL3 (3/3) 4.43MHz BPF
IC1 (C REC PB MAIN PROCESS)
DL1 2H DELAY
FL3 (2/3) 1.6MHz LPF
FL2 DELAY
TP2
TP8002 500mVp-p REC
TP8002 240mVp-p PLAY
D1
TRICK Ⓛ
COMB AMP
AMP
REC COLOUR KILLER
COLOUR ON
QR10
B/W Ⓗ P8001 10A P932 10A P931 10A P3002 10A TO VIDEO (1) P933 10A P3501 10A TO VIDEO (3)
REC C P8001 6B P932 6B P931 6A P3002 6A TO VIDEO (1)
ACC
PILOT BURST SELECT
PB BUFFER
REC BURST 6dB BOOST
MAIN B. M.
REC
PB
C29~C31 L8~L10 LPF
PG AMP
QR8
QR7 (4PⒽ:ON)
C23
P. BURST PHASE
PILOT BURST GEN.
PB COLOUR KILLER
VR5 PBC1
Q2 BUFF
ACC DET
BURST GATE
BURST GATE PULSE GEN.
1/321
AFC PHASE COMP.
90° PHASE SHIFTER
REC COLOUR KILL-ER PHASE COMP.
5.03MHz VCO
C6, C7, X1 4.43MHz OSC
VCO
REC APC PHASE COMP.
FREQUNCY DETECT
1/2
QR12
PB APC PHASE COMP.
1/4 RING COUNTER PHASE ROTATION
QR3 FREQUENCY DUBLLER
QR4 (1/2)
QR4 (2/2)
SUB B. M.
DIGITAL PLL
M. M. V.
D13
REF. NO. 8000 SERIES
TP8003 200mVp-p REC/PLAY
4.43M P8001 12A P932 12A P923 12B P3501 12B TO VIDEO (3)
FL3 (1/3) 5.06MHz BPF
TP3
ROTARY SW P8001 32A P932 32A P923 4 P2002 9 FROM SERVO
V
H

REEL DRIVE BLOCK DIAGRAM

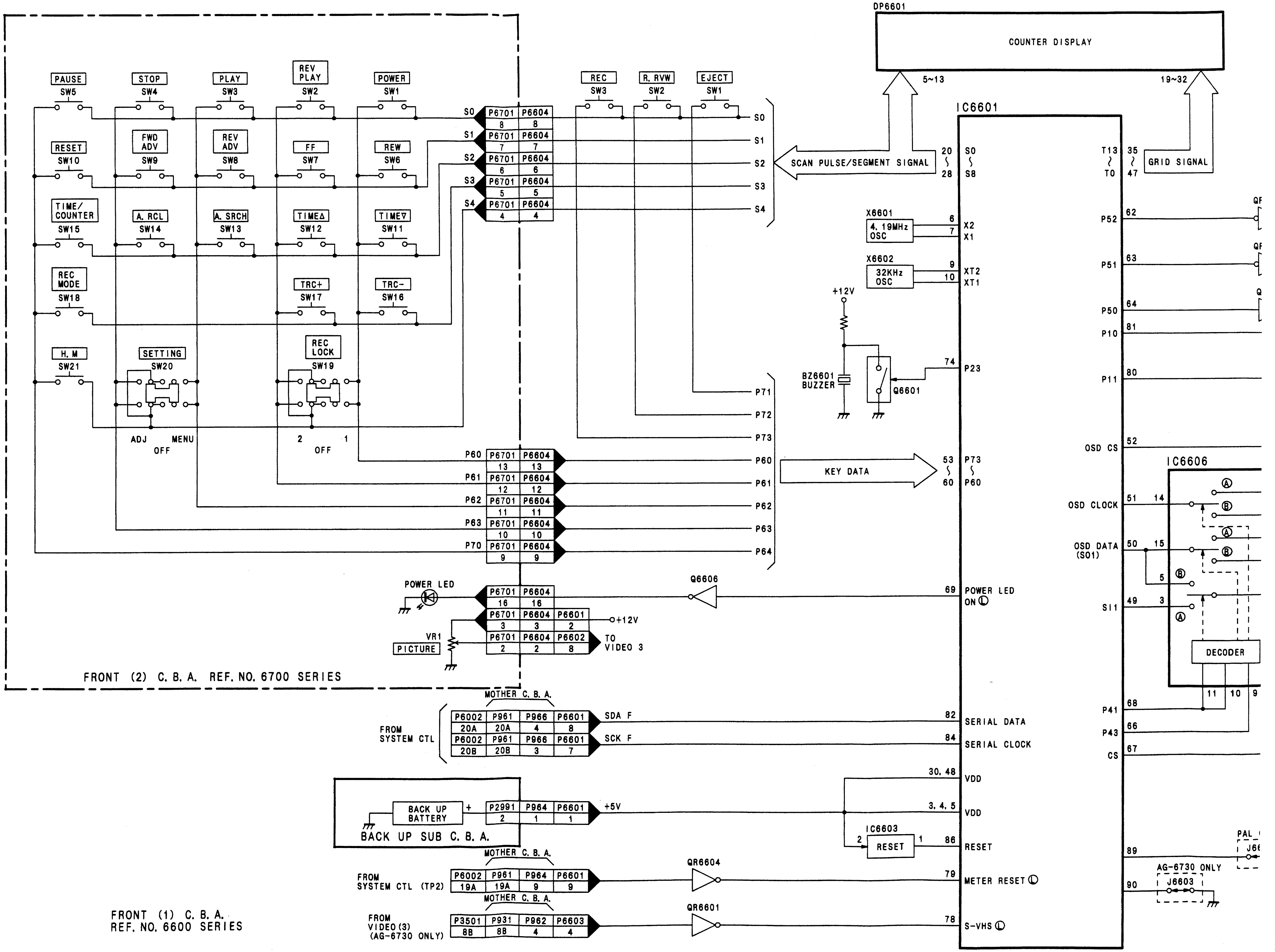

(FROM SERVO)
P2006 P2702 1 1
S-REEL VM
P2006 P2702 3 3
T-REEL VM
(FROM/TO SYSTEM CTL)
P6002 P961 P921 P2701 5A 5A 13 6
S REEL FG
P6002 P961 P921 P2701 6A 6A 12 7
T REEL FG
P6002 P961 P921 P2701 8B 8B 10 9
V. REF
(TO SERVO)
P2003 P922 P921 P2701 1 12 9 10
S-REEL FB
P2003 P922 P921 P2701 3 10 7 12
T-REEL FB
(FROM SYSTEM CTL)
P6002 P961 P921 P2701 9B 9B 6 13
CHANGE
P6002 P961 P921 P2701 12B 12B 5 14
T-REEL RSF
P6002 P961 P921 P2701 9A 9A 4 15
S-REEL ET
P6002 P961 P921 P2701 11B 11B 3 16
S-REEL RSF
P6002 P961 P921 P2701 10B 10B 2 17
TQU
P6002 P961 P921 P2701 10A 10A 1 18
T-REEL ET
IC2703
AMP
IC2704
13
12
14
IC2705
9
8
11
10
14
13
3V
2V
QR2701
IC2703
AMP
2
1
10
15
IC2704
(TO SYSTEM CTL)
P6002 P961 P921 P2701 8A 8A 8 11
SF PHOTO
P6002 P961 P921 P2701 7A 7A 11 8
SR PHOTO
IC2706
AMP
AMP
7
5
1
3
P2703 4
SF PHT
P2703 8
SR PHT
P61001 P61003 4 2
P61001 P61002 8 2
SOLENOID
SUPPLY FWD SENSOR
SUPPLY REV SENSOR
5V
24
23
3
1
2
19
22
16
15
RIPPLE CANCELLER
TORQUE CONTROL
DIFFERENTIAL AMP
DIFFERENTIAL AMP
TORQUE DIRECTIO CONTROL
POSITION SIGNAL PROCESS
IC2701
5 6 7 8 9 10
11
IC2702 (T-REEL DRIVE)
23
3
1
2
19
22
16
15
24
RIPPLE CANCELLER
TORQUE CONTROL
DIFFERENTIAL AMP
DIFFERENTIAL AMP
TORQUE DIRECTI CONTROL
POSITION SIGNAL PROCESS
5 6 7 8 9 10
11

REF. NO. 2700 SERIES

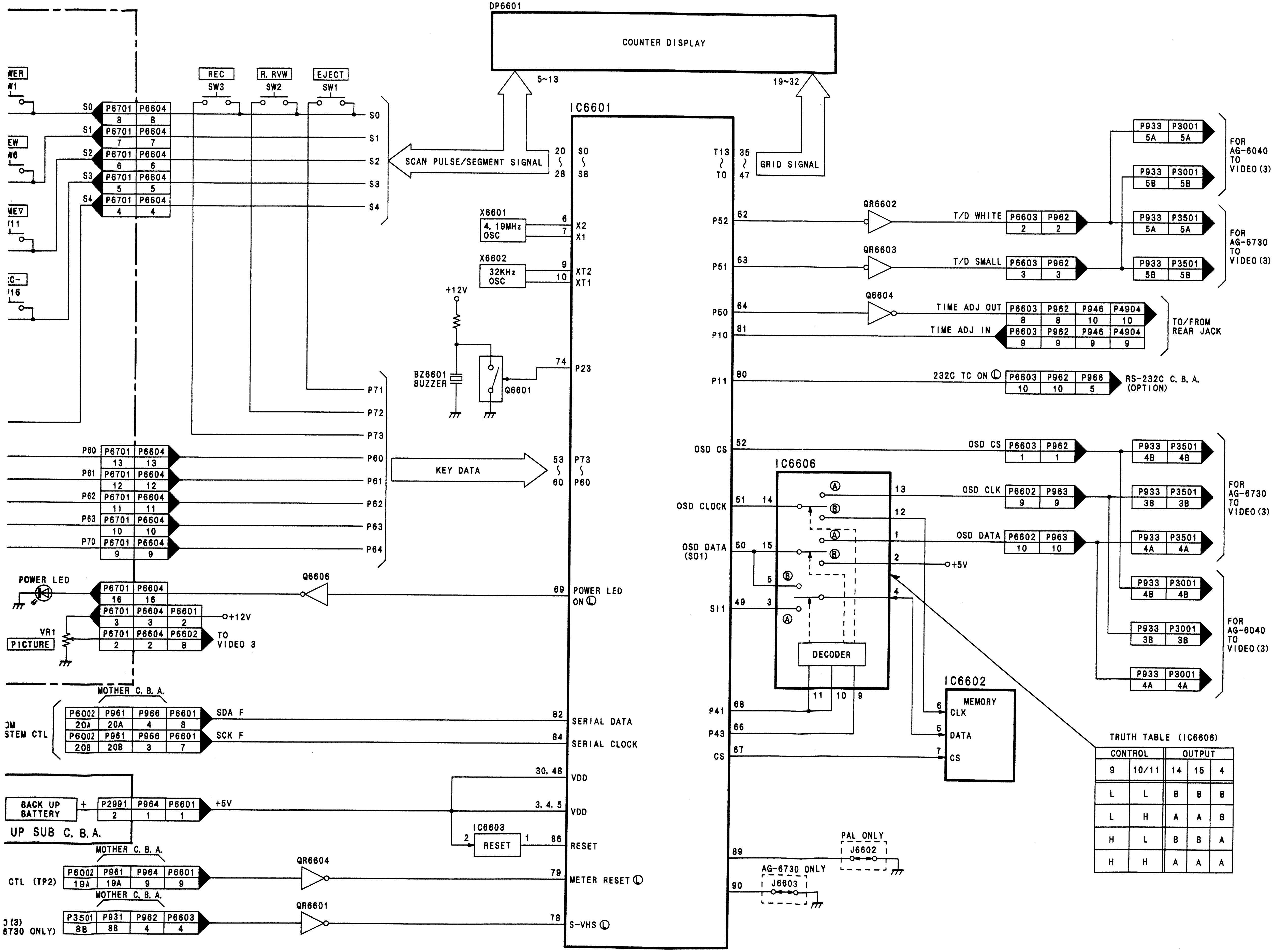

IC2701
IC2702 (T-REEL DRIVE)
DIFFERENTIAL AMP
POSITION SIGNAL PROCESS
RIPPLE CANCELLER
TORQUE CONTROL
TORQUE DIRECTION CONTROL
IC2705
FG AMP
M1
M2
M3
FG+
FG-
H3-
H3+
H2-
H2+
H1-
H1+
P2704
P2705
FG
SUPPLY REEL MOTOR
TAKE-UP REEL MOTOR
IC2703
AMP
IC2704
QR2701
SF PHT
SR PHT
P2703
P61001
P61003
P61002
SOLENOID
SUPPLY FWD SENSOR
SUPPLY REV SENSOR
5V
N
S

REF. NO. 2700 SERIES

FRONT (1) AND FRONT (2) BLOCK DIAGRAM


PAUSE SW5
STOP SW4
PLAY SW3
REV PLAY SW2
POWER SW1
RESET SW10
FWD ADV SW9
REV ADV SW8
FF SW7
REW SW6
TIME/COUNTER SW15
A. RCL SW14
A. SRCH SW13
TIME△ SW12
TIME▽ SW11
REC MODE SW18
TRC+ SW17
TRC− SW16
H. M SW21
SETTING SW20
ADJ MENU OFF
REC LOCK SW19
2 1 OFF
REC SW3
R. RVW SW2
EJECT SW1
S0 S1 S2 S3 S4
P6701 P6604 8 8
P6701 P6604 7 7
P6701 P6604 6 6
P6701 P6604 5 5
P6701 P6604 4 4
P71 P72 P73
P60 P61 P62 P63 P64 P70
P6701 P6604 13 13
P6701 P6604 12 12
P6701 P6604 11 11
P6701 P6604 10 10
P6701 P6604 9 9
POWER LED
P6701 P6604 16 16
P6701 P6604 P6601 3 3 2
+12V
VR1 PICTURE
P6701 P6604 P6602 2 2 8
TO VIDEO 3
FRONT (2) C. B. A. REF. NO. 6700 SERIES
Q6606
DP6601
COUNTER DISPLAY
5~13
19~32
IC6601
SCAN PULSE/SEGMENT SIGNAL
20~28 S0~S8
T13~T0 35~47
GRID SIGNAL
X6601 4. 19MHz OSC 6 7 X2 X1
X6602 32KHz OSC 9 10 XT2 XT1
+12V
BZ6601 BUZZER
Q6601
74 P23
KEY DATA
53~60 P73~P60
69 POWER LED ON Ⓛ
P52 62
P51 63
P50 64
P10 81
P11 80
OSD CS 52
OSD CLOCK 51 14
OSD DATA (S01) 50 15
SI1 49 3
5
IC6606
Ⓐ Ⓑ
DECODER
11 10 9
P41 68
P43 66
CS 67
89
90
AG-6730 ONLY
J6603
PAL
J66
QF
MOTHER C. B. A.
FROM SYSTEM CTL
P6002 P961 P966 P6601 20A 20A 4 8 SDA F
P6002 P961 P966 P6601 20B 20B 3 7 SCK F
82 SERIAL DATA
84 SERIAL CLOCK
30, 48 VDD
3, 4, 5 VDD
BACK UP BATTERY
P2991 P964 P6601 2 1 1
+5V
BACK UP SUB C. B. A.
IC6603 RESET 2 1
86 RESET
FROM SYSTEM CTL (TP2)
P6002 P961 P964 P6601 19A 19A 9 9
QR6604
79 METER RESET Ⓛ
FROM VIDEO (3) (AG-6730 ONLY)
P3501 P931 P962 P6603 8B 8B 4 4
QR6601
78 S-VHS Ⓛ
FRONT (1) C. B. A. REF. NO. 6600 SERIES

DIAGRAM


DP6601
COUNTER DISPLAY
5~13
19~32
IC6601
SCAN PULSE/SEGMENT SIGNAL
GRID SIGNAL
20 S0
28 S8
T13 35
T0 47
REC SW3
R. RVW SW2
EJECT SW1
S0 P6701 P6604 8 8
S1 P6701 P6604 7 7
S2 P6701 P6604 6 6
S3 P6701 P6604 5 5
S4 P6701 P6604 4 4
X6601 4.19MHz OSC
6 X2
7 X1
X6602 32KHz OSC
9 XT2
10 XT1
+12V
BZ6601 BUZZER
Q6601
74 P23
P71
P72
P73
P60 P6701 P6604 13 13
P61 P6701 P6604 12 12
P62 P6701 P6604 11 11
P63 P6701 P6604 10 10
P70 P6701 P6604 9 9
P60
P61
P62
P63
P64
KEY DATA
53 P73
60 P60
POWER LED
P6701 P6604 16 16
Q6606
69 POWER LED ON Ⓛ
P6701 P6604 P6601 3 3 2
+12V
VR1 PICTURE
P6701 P6604 P6602 2 2 8
TO VIDEO 3
MOTHER C. B. A.
P6002 P961 P966 P6601 20A 20A 4 8
SDA F
P6002 P961 P966 P6601 20B 20B 3 7
SCK F
STEM CTL
82 SERIAL DATA
84 SERIAL CLOCK
30, 48 VDD
3, 4, 5 VDD
BACK UP BATTERY
P2991 P964 P6601 2 1 1
+5V
UP SUB C. B. A.
IC6603 RESET
2
1
86 RESET
MOTHER C. B. A.
P6002 P961 P964 P6601 19A 19A 9 9
CTL (TP2)
QR6604
79 METER RESET Ⓛ
MOTHER C. B. A.
P3501 P931 P962 P6603 8B 8B 4 4
6730 ONLY)
QR6601
78 S-VHS Ⓛ
62 P52
QR6602
T/D WHITE P6603 P962 2 2
63 P51
QR6603
T/D SMALL P6603 P962 3 3
P933 P3001 5A 5A
P933 P3001 5B 5B
FOR AG-6040 TO VIDEO (3)
P933 P3501 5A 5A
P933 P3501 5B 5B
FOR AG-6730 TO VIDEO (3)
64 P50
Q6604
TIME ADJ OUT P6603 P962 P946 P4904 8 8 10 10
81 P10
TIME ADJ IN P6603 P962 P946 P4904 9 9 9 9
TO/FROM REAR JACK
80 P11
232C TC ON Ⓛ P6603 P962 P966 10 10 5
RS-232C C. B. A. (OPTION)
52 OSD CS
OSD CS P6603 P962 1 1
IC6606
51 OSD CLOCK
50 OSD DATA (SO1)
49 S11
14
15
5
3
13
12
1
2
4
+5V
DECODER
11 10 9
OSD CLK P6602 P963 9 9
OSD DATA P6602 P963 10 10
P933 P3501 4B 4B
P933 P3501 3B 3B
P933 P3501 4A 4A
FOR AG-6730 TO VIDEO (3)
P933 P3001 4B 4B
P933 P3001 3B 3B
P933 P3001 4A 4A
FOR AG-6040 TO VIDEO (3)
IC6602 MEMORY
6 CLK
5 DATA
7 CS
68 P41
66 P43
67 CS
89
PAL ONLY J6602
90
AG-6730 ONLY J6603

TRUTH TABLE (IC6606)

CONTROL		OUTPUT		
9	10/11	14	15	4
L	L	B	B	B
L	H	A	A	B
H	L	B	B	A
H	H	A	A	A

Section 7

SCHEMATIC DIAGRAMS
AND
CIRCUIT BOARDS

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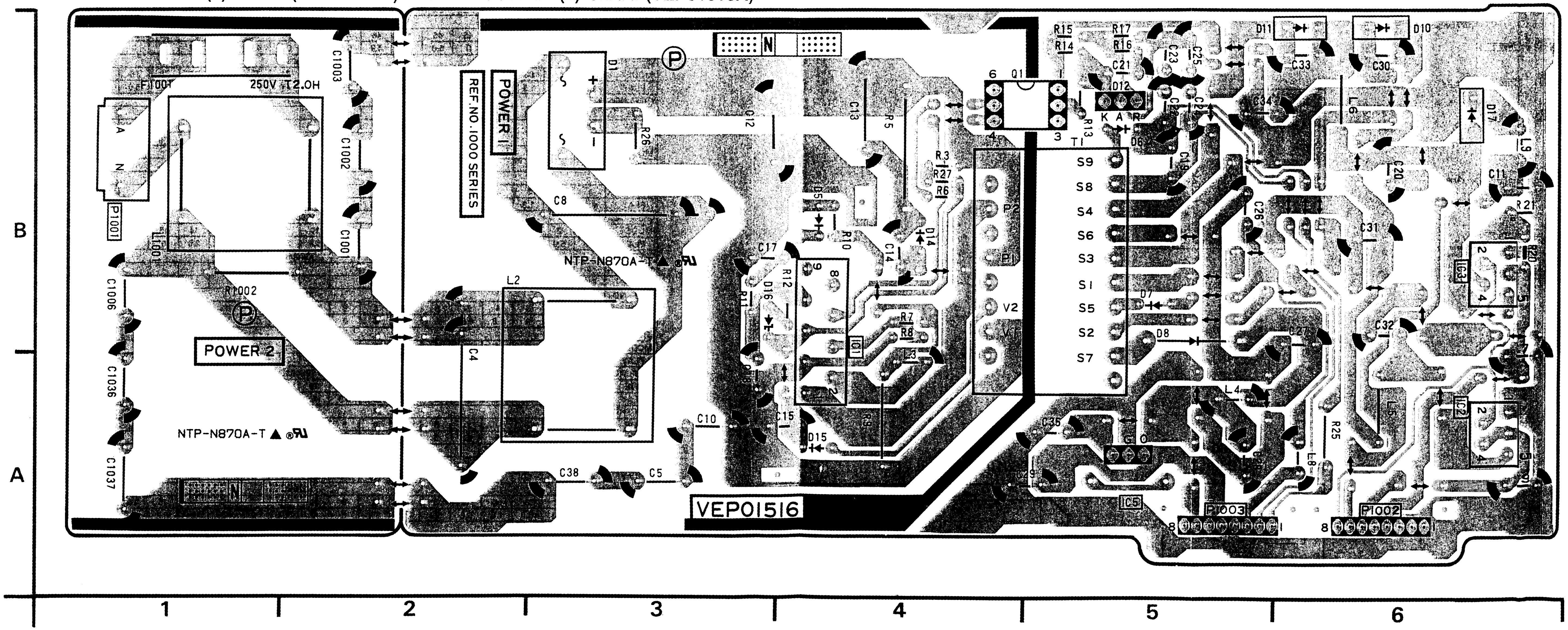
NOTE : DO NOT USE THE PART NUMBER SHOWN ON THIS DRAWING FOR ORDERING.
THE CORRECT PART NUMBER IS SHOWN IN THE PARTS LIST,AND MAY BE SLIGHTLY DIFFERENT OR AMENDED SINCE THIS DRAWING WAS PREPARED.

NOTE : MEASUREMENT SIGNAL ... PAL COLOUR SIGNAL. MEASUREMENT TAPE ... VHS TAPE.

IMPORTANT SAFETY NOTICE :
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

POWER SUPPLY (1) C.B.A. (VEP01516A) AND POWER SUPPLY (2) C.B.A. (VEP01517A)

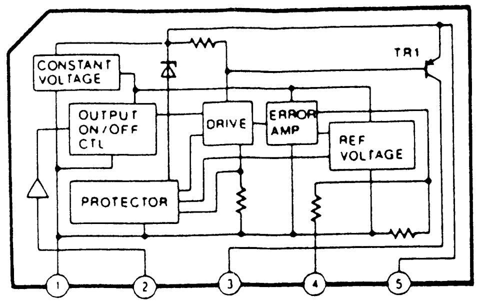


POWER SUPPLY (2) C.B.A. (VEP01517A) POWER SUPPLY (1) C.B.A. (VEP01516A)

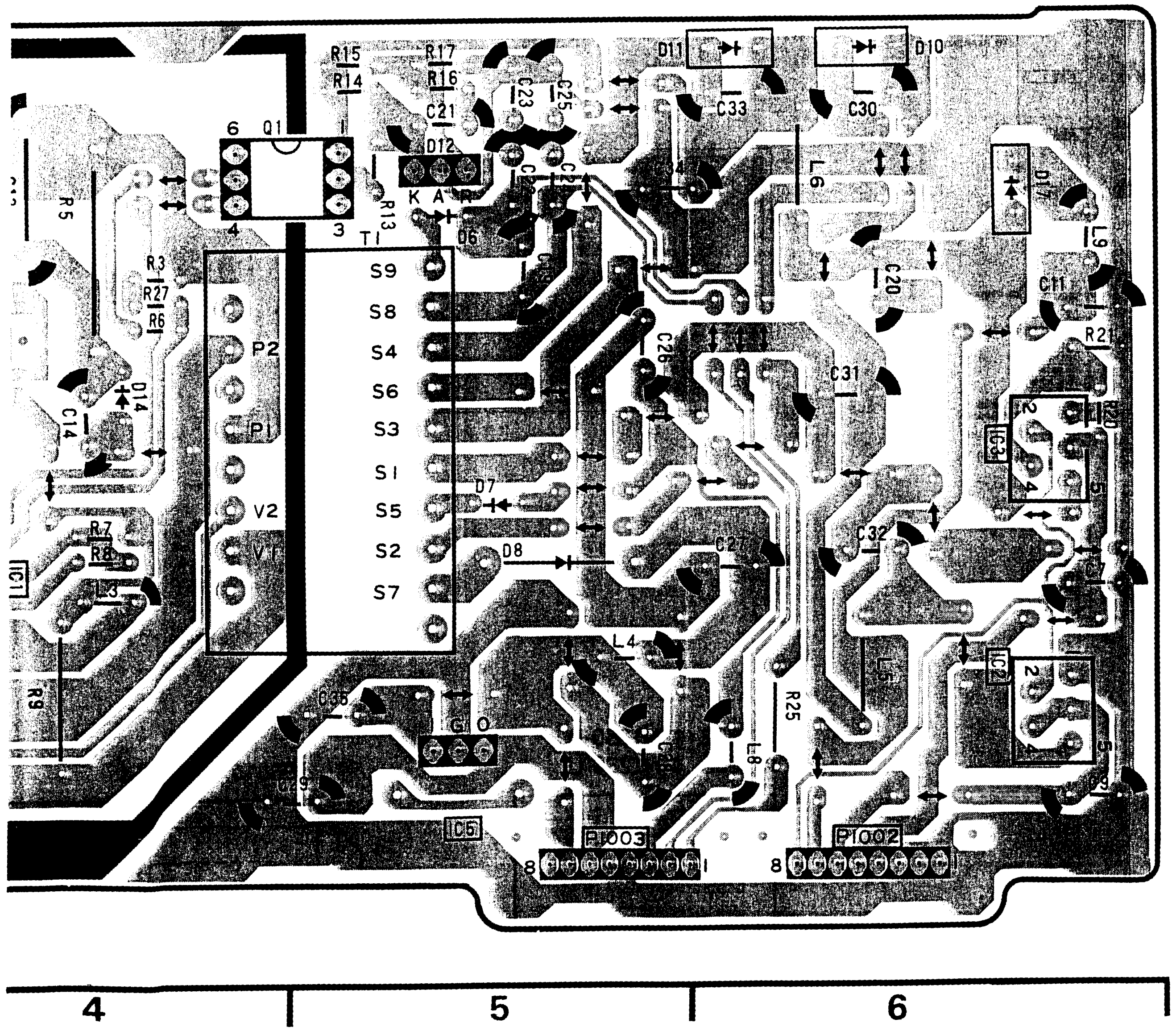
A
B
1
2
3
4
5
6
P1001
F1001
250V T2.0H
L1001
R1002
POWER 2
C1003
C1002
C1001
C1006
C1036
C1037
NTP-N870A-T
REF. NO. 1000 SERIES
POWER 1
D1
R26
C8
L2
C4
C38
C5
C10
C12
C13
R5
D5
R10
C14
D14
C17
R12
D16
R11
IC1
R7
R8
L3
C15
D15
R3
R27
R6
P2
P1
V2
V1
VEP01516
R15
R14
R17
R16
C21
D12
K A R
Q1
6
1
4
3
T1
R13
D6
S9
S8
S4
S6
S3
S1
S5
S2
S7
D7
D8
C23
C25
C22
C24
C18
C26
C27
C35
IC5
P1003
P1002
L4
L8
R25
D11
D10
C33
C30
C34
L6
D17
L9
C19
C20
R21
C31
IC3
R20
C32
IC2
L5

EP01517A)

IC1003 SI3050C

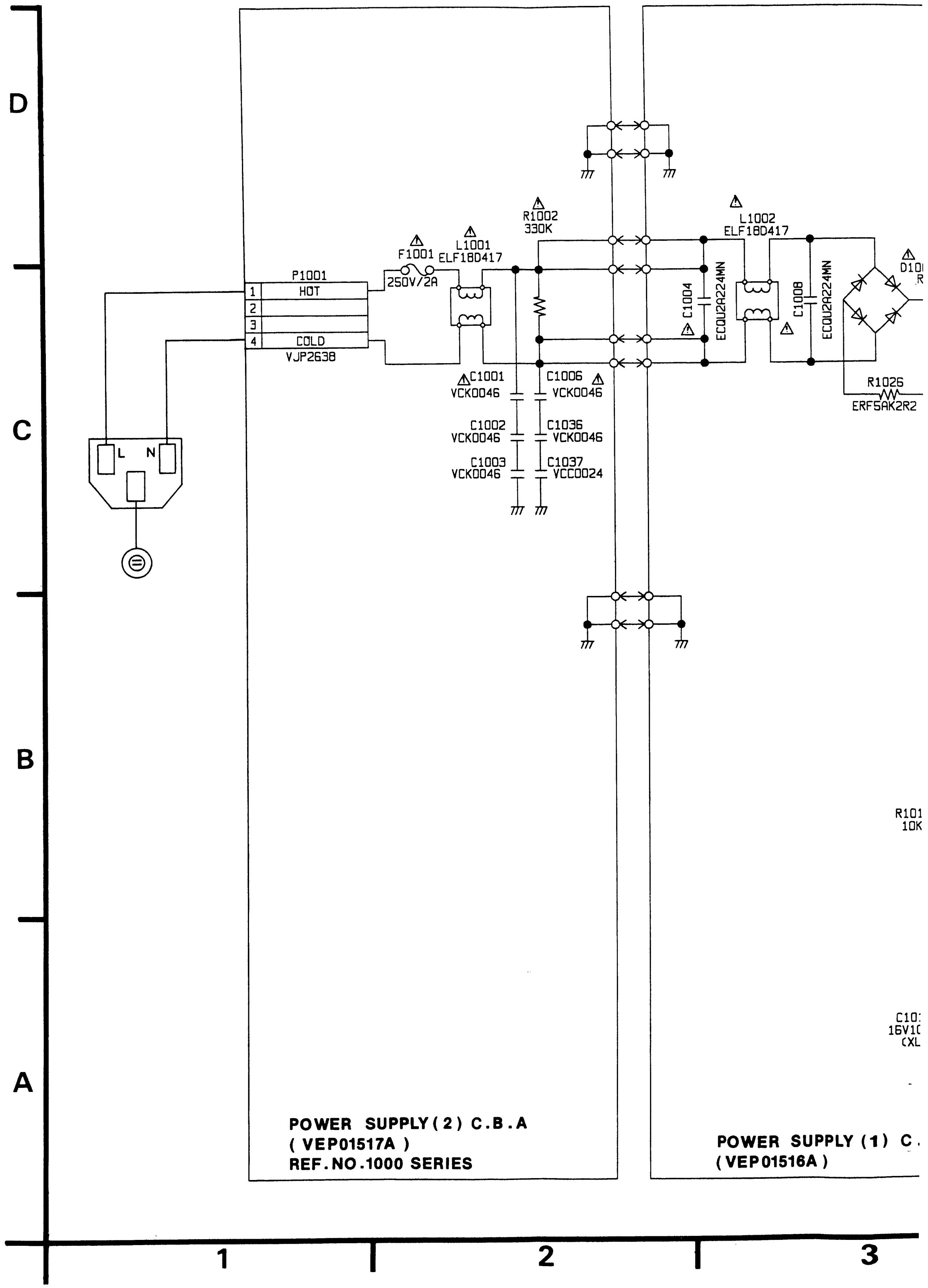


CONSTANT VOLTAGE
OUTPUT ON/OFF CTL
DRIVE
ERROR AMP
REF VOLTAGE
PROTECTOR
TR1
1
2
3
4
5



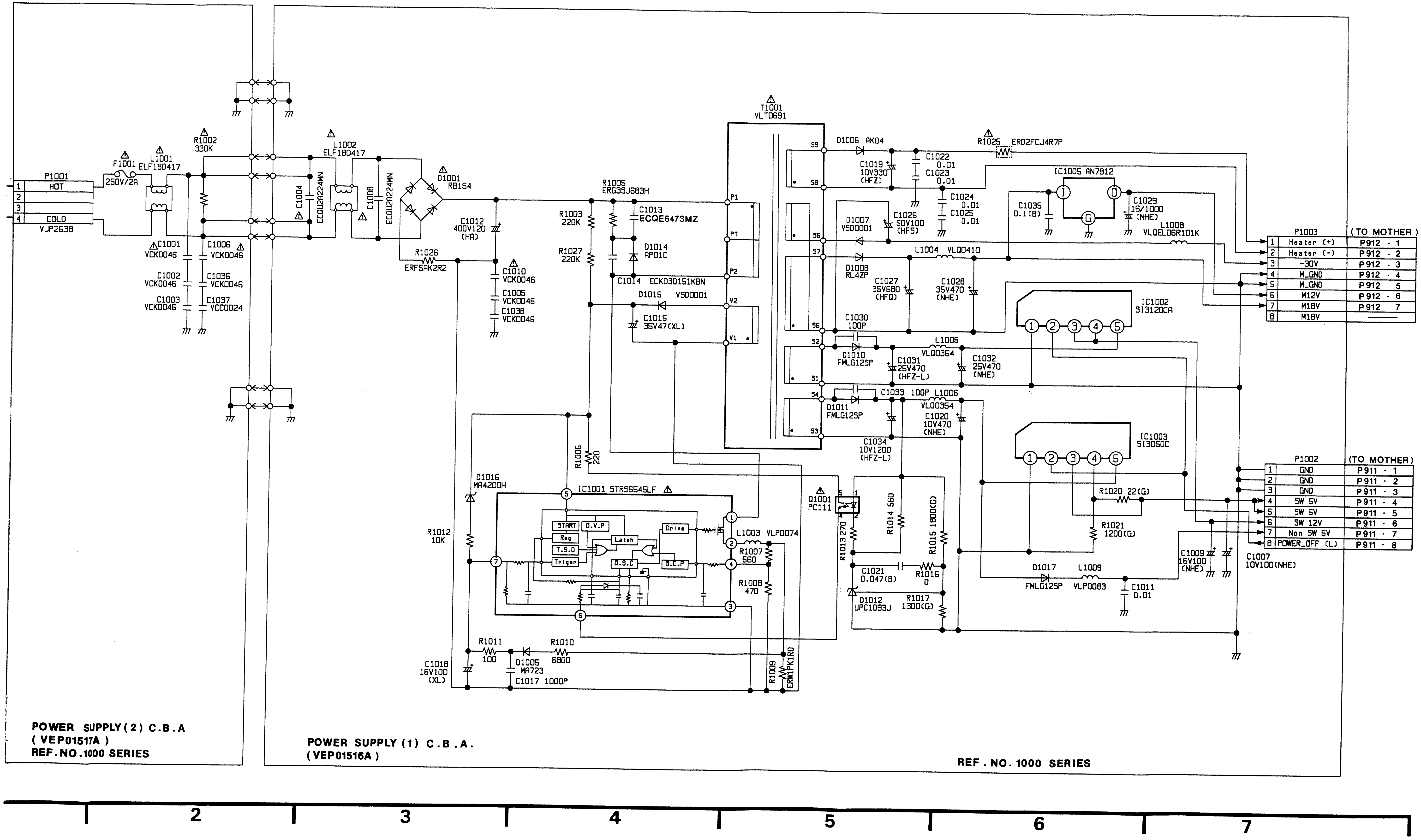
R15
R14
R17
R16
C21
C23
C25
D11
D10
C33
C30
6
Q1
4
3
D12
K A
R13
D6
T1
S9
S8
S4
S6
S3
S1
S5
S2
S7
P2
P1
V2
V1
R5
R3
R27
R6
D14
C14
IC1
R7
R8
L3
R9
D7
D8
L6
C20
C26
C31
D17
L9
C11
R21
IC3
C32
L4
L5
R25
L8
IC2
IC5
P1003
P1002
8
1
4
5
6

POWER SUPPLY (1) AND (2) SCHEMATIC DIAGRAM

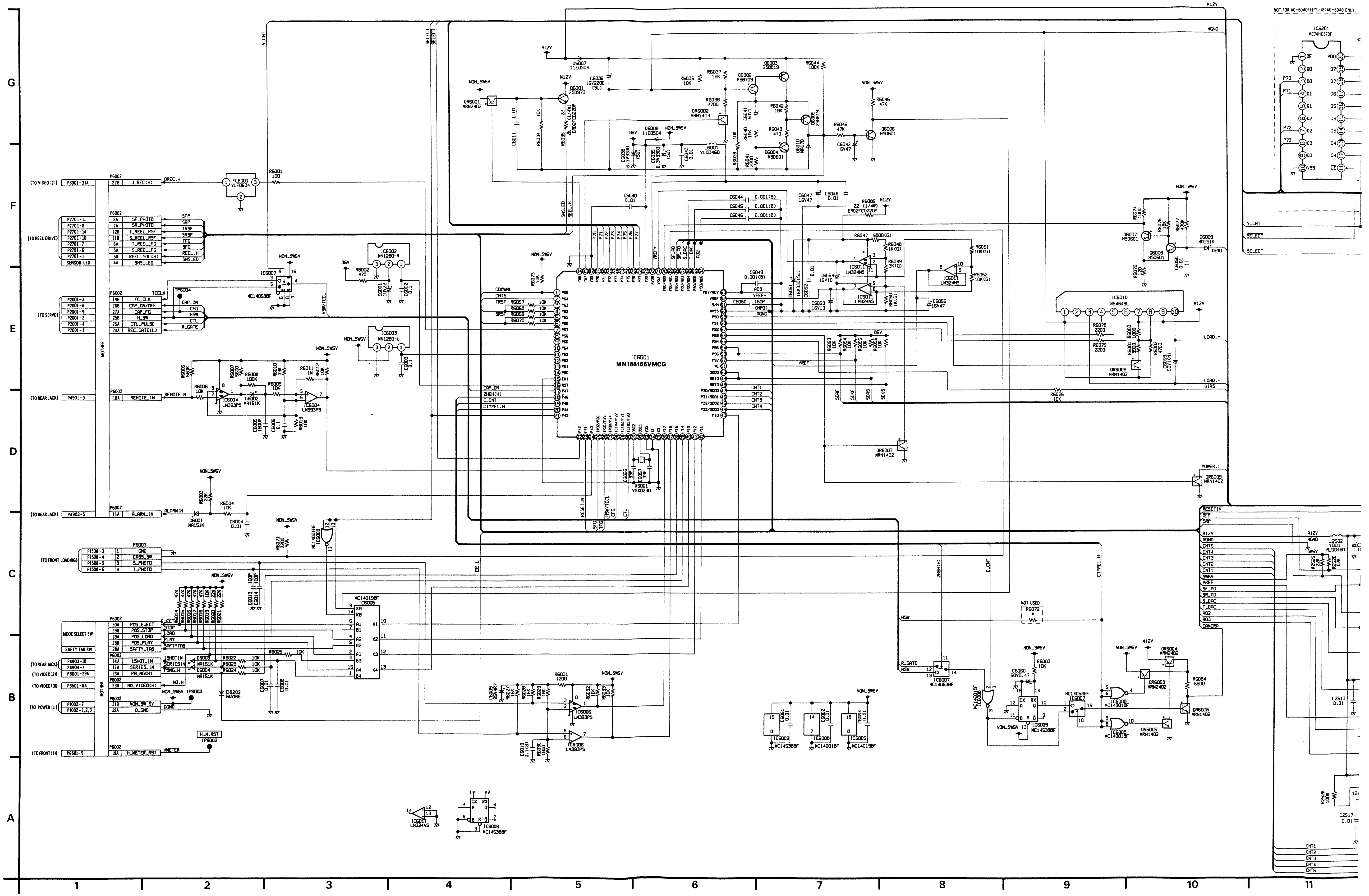


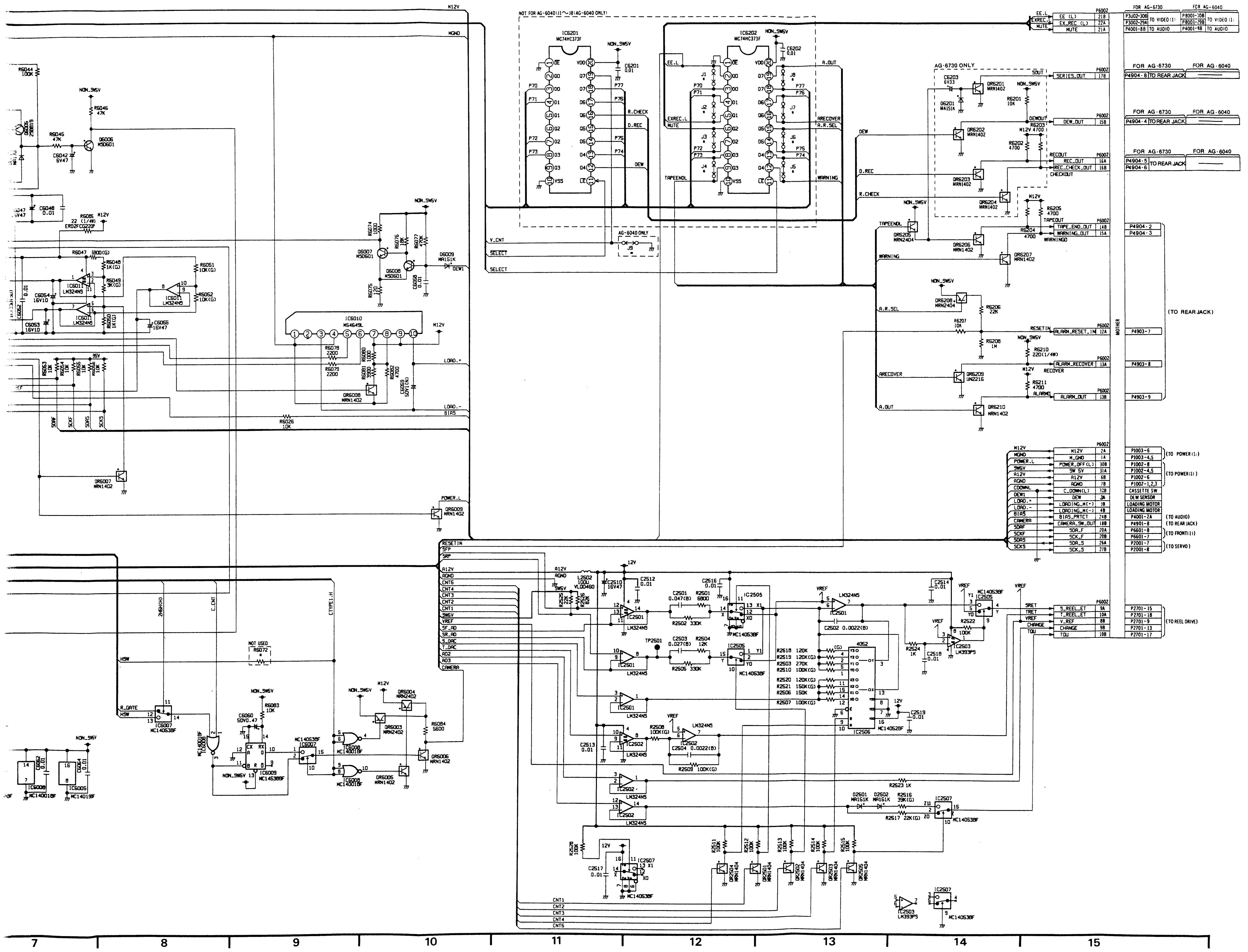
D
C
B
A
1
2
3
P1001
HOT
COLD
VJP2638
1
2
3
4
L
N
F1001
250V/2A
L1001
ELF18D417
R1002
330K
L1002
ELF18D417
C1004
ECQU2A224MN
C1008
ECQU2A224MN
D101
R1026
ERF5AK2R2
C1001
VCK0046
C1006
VCK0046
C1002
VCK0046
C1036
VCK0046
C1003
VCK0046
C1037
VCC0024
R101
10K
C101
16V10
CXL
POWER SUPPLY(2) C.B.A
(VEP01517A)
REF.NO.1000 SERIES
POWER SUPPLY (1) C.
(VEP01516A)

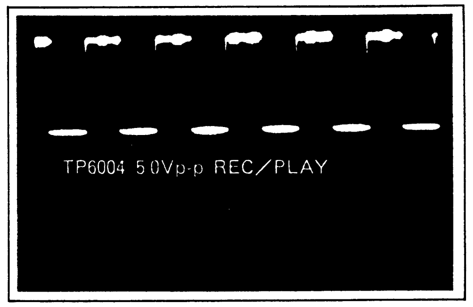
LY (1) AND (2) SCHEMATIC DIAGRAM


P1001
HOT
COLD
VJP2638
F1001
250V/2A
L1001
ELF18D417
R1002
330K
C1001
VCK0046
C1002
VCK0046
C1003
VCK0046
C1006
VCK0046
C1036
VCK0046
C1037
VCC0024
C1004
ECQU2A224MN
L1002
ELF18D417
C1008
ECQU2A224MN
D1001
RB154
R1026
ERF5AK2R2
C1012
400V120
(HA)
C1010
VCK0046
C1005
VCK0046
C1038
VCK0046
R1005
ERG35J683H
R1003
220K
R1027
220K
C1013
ECQE6473MZ
D1014
AP01C
C1014 ECKD3D151KBN
D1015 VSD0001
C1015
35V47(XL)
T1001
VLT0691
P1
PT
P2
V2
V1
S9
S8
S5
S7
S6
S2
S1
S4
S3
D1006 AK04
C1019
10V330
(HFZ)
C1022
0.01
C1023
0.01
C1024
0.01
C1025
0.01
R1025 ERD2FCJ4R7P
IC1005 AN7812
C1035
0.1(B)
C1029
16/1000
(NHE)
L1008
VLQEL06R101K
D1007
VSD0001
C1026
50V100
(HFS)
L1004 VLQ0410
D1008
RL4ZP
C1027
35V680
(HFQ)
C1028
35V470
(NHE)
C1030
100P
IC1002
SI3120CA
L1005
VLQ0354
D1010
FMLG12SP
C1031
25V470
(HFZ-L)
C1032
25V470
(NHE)
C1033 100P L1006
VLQ0354
D1011
FMLG12SP
C1020
10V470
(NHE)
C1034
10V1200
(HFZ-L)
IC1003
SI3050C
P1003
(TO MOTHER)
1 Heater (+) P912 - 1
2 Heater (-) P912 - 2
3 -30V P912 - 3
4 M_GND P912 - 4
5 M_GND P912 5
6 M12V P912 - 6
7 M18V P912 7
8 M18V
P1002
(TO MOTHER)
1 GND P911 - 1
2 GND P911 - 2
3 GND P911 - 3
4 SW 5V P911 - 4
5 SW 5V P911 - 5
6 SW 12V P911 - 6
7 Non SW 5V P911 - 7
8 POWER_OFF (L) P911 - 8
R1006
220
D1016
MA4200H
R1012
10K
IC1001 STR56545LF
START
O.V.P
Reg
Latch
Drive
T.S.D
Triger
O.S.C
O.C.P
L1003 VLP0074
R1007
560
R1008
470
Q1001
PC111
R1013 270
R1014 560
R1015 1800(G)
C1021
0.047(B)
R1016
0
D1012
UPC1093J
R1017
1300(G)
R1020 22(G)
R1021
1200(G)
D1017
FMLG12SP
L1009
VLP0083
C1011
0.01
C1009
16V100
(NHE)
C1007
10V100(NHE)
R1011
100
D1005
MA723
R1010
6800
C1017 1000P
C1018
16V100
(XL)
R1009
ERW1PK1R0
POWER SUPPLY(2) C.B.A
(VEP01517A)
REF.NO.1000 SERIES
POWER SUPPLY (1) C.B.A.
(VEP01516A)
REF. NO. 1000 SERIES
2
3
4
5
6
7

SYSTEM CONTROL SCHEMATIC DIAGRAM


IC6001
MN188166VMCG
IC6002 MN1280-R
IC6003 MN1280-U
IC6004 LM393PS
IC6005 MC14019BF
IC6006 LM393PS
IC6007 MC14053BF
IC6008 MC14001BF
IC6009 MC14538BF
IC6010 M54649L
IC6011 LM324NS
IC6201 MC74HC373F
NOT FOR AG-6040(J)~J8:AG-6040 ONLY
X6001 VSX0230
FL6001 VLF0634
NOT USED R6072
P6002
P6003
MOTHER
(TO VIDEO(2))
(TO REEL DRIVE)
(TO SERVO)
(TO REAR JACK)
(TO FRONT LOADING)
MODE SELECT SW
SAFTY TAB SW
(TO VIDEO(3))
(TO POWER(1))
(TO FRONT(1))
M12V
MGND
NON_SW5V
H.M.RST TP6002
TP6003
TP6004
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

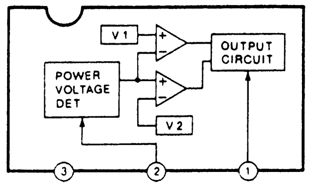

M12V
MGND
NOT FOR AG-6040 (J1～J8: AG-6040 ONLY)
IC6201 MC74HC373F
IC6202 MC74HC373F
NON_SW5V
R.CHECK
D.REC
DEW
TAPEENDL
EE.L
EXREC.L
MUTE
A.OUT
ARECOVER
A.R.SEL
WARNING
AG-6730 ONLY
SOUT
QR6201 MRN1402
QR6202 MRN1402
QR6203 MRN1402
QR6204 MRN1402
QR6205 MRN2404
QR6206 MRN1402
QR6207 MRN1402
QR6208 MRN2404
QR6209 UN2216
QR6210 MRN1402
D6201 MA151K
P6002
SERIES_OUT
DEW_OUT
REC_OUT
REC_CHECK_OUT
TAPE_END_OUT
WARNING_OUT
ALARM_RESET_IN
ALARM_RECOVER
ALARM_OUT
FOR AG-6730
FOR AG-6040
TO VIDEO (1)
TO AUDIO
TO REAR JACK
(TO REAR JACK)
MOTHER
(TO POWER (1))
(TO AUDIO)
(TO REAR JACK)
(TO FRONT (1))
(TO SERVO)
(TO REEL DRIVE)
AG-6040 ONLY
V_CNT
SELECT
IC6010 M54649L
IC6011 LM324NS
Q6006 MSD601
Q6007 MSD601
Q6008 MSD601
D6009 MA151K
QR6007 MRN1402
QR6008 MRN1402
QR6009 MRN1402
POWER_L
LOAD.+
LOAD.-
BIAS
RESETIN
IC2501 LM324NS
IC2502 LM324NS
IC2503 LM393PS
IC2505 MC14053BF
IC2506 MC14052BF
IC2507 MC14053BF
TP2501
QR2501 MRN1404
QR2502 MRN1404
QR2503 MRN1404
QR2504 MRN1404
QR2505 MRN1404
S_REEL_ET
T_REEL_ET
V_REF
CHANGE
TOU
CNT1
CNT2
CNT3
CNT4
CNT5
IC6007 MC14053BF
IC6008 MC14001BF
IC6009 MC14538BF
IC6005 MC14019F
IC6006 MC14001BF
QR6003 MRN2402
QR6004 MRN2402
QR6005 MRN1402
QR6006 MRN1402
NOT USED R6072
HSW
R_GATE
C.CNT
CTYPE1.H
7
8
9
10
11
12
13
14
15


TP6004 5.0Vp-p REC/PLAY

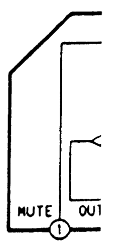
SYSTEM CONTROL TRs DC VOLT

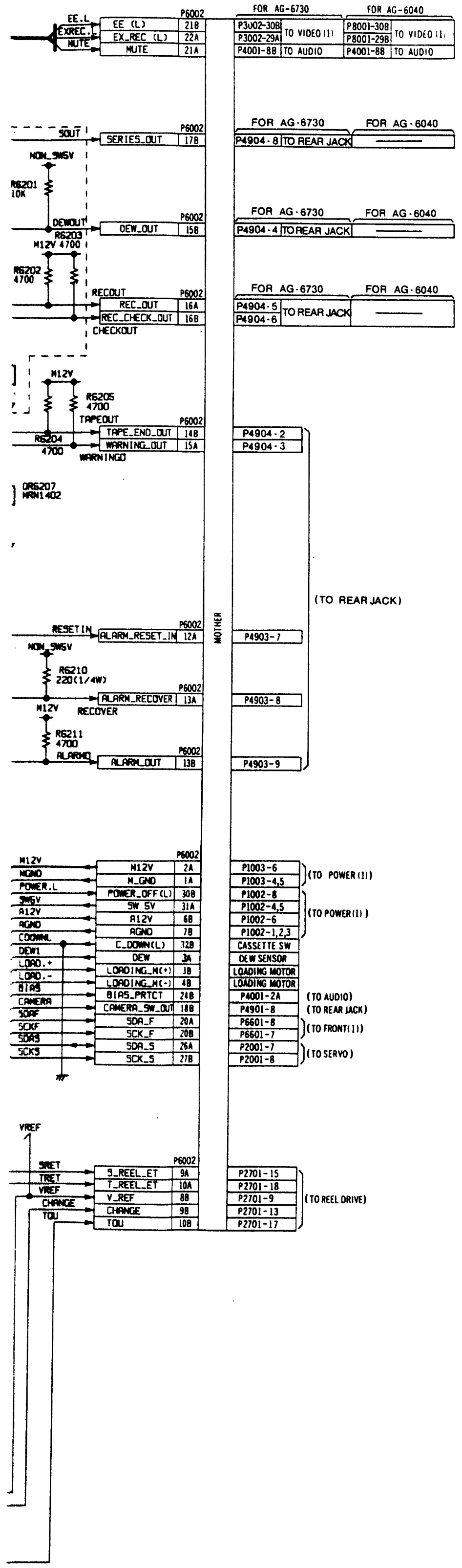
REF. NO.	Q6001			Q6002			Q600	
MODE	E	C	B	E	C	B	E	C
PLAY	0.9	11.8	0.7	11.1	0	11.6	11.6	0
REF. NO.	Q6007			Q6008				
MODE	E	C	B	E	C	B		
PLAY	0.6	0.6	1.3	0.6	1.3	0.4		
REF. NO.	QR2501			QR2502			QR250	
MODE	E	C	B	E	C	B	E	C
PLAY	0	11.9	0	0	0	5.0	0	11.9
REF. NO.	QR6002			QR6003			QR600	
MODE	E	C	B	E	C	B	E	C
PLAY	0	11.6	0	5.3	11.7	5.6	11.8	11.7
REF. NO.	QR6008			QR6009			QR620	
MODE	E	C	B	E	C	B	E	C
PLAY	0	9.7	0	0	3.0	0	0	0
REF. NO.	QR6205			QR6206			QR620	
MODE	E	C	B	E	C	B	E	C
PLAY	5.3	0	5.3	0	11.8	0	0	11.8

IC6002 MN1280-R
IC6003 MN1280-U


V1
V2
POWER VOLTAGE DET
OUTPUT CIRCUIT
3
2
1

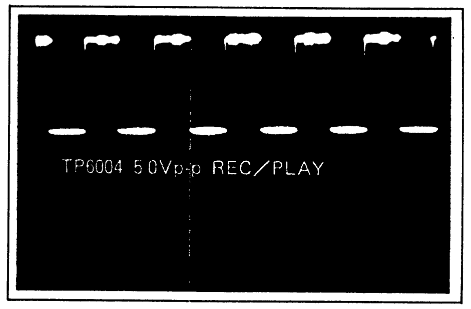
IC



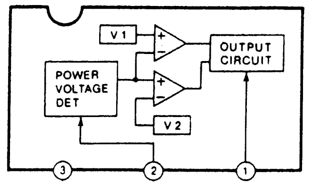

EE.L
EXREC.L
MUTE
P6002
EE (L)
21B
EX_REC (L)
22A
MUTE
21A
FOR AG-6730
P3002-30B
P3002-29A
TO VIDEO (1)
P4001-8B
TO AUDIO
FOR AG-6040
P8001-30B
P8001-29B
TO VIDEO (1)
P4001-8B
TO AUDIO
SOUT
SERIES_OUT
17B
P4904-8
TO REAR JACK
NON_SW5V
R6201
10K
DEWOUT
DEW_OUT
15B
P4904-4
TO REAR JACK
R6203
M12V 4700
R6202
4700
RECOUT
REC_OUT
16A
REC_CHECK_OUT
16B
CHECKOUT
P4904-5
P4904-6
TO REAR JACK
M12V
R6205
4700
TAPEOUT
TAPE_END_OUT
14B
WARNING_OUT
15A
R6204
4700
WARNINGO
P4904-2
P4904-3
QR6207
MRN1402
(TO REAR JACK)
RESETIN
ALARM_RESET_IN
12A
P4903-7
MOTHER
NON_SW5V
R6210
220(1/4W)
ALARM_RECOVER
13A
P4903-8
M12V
RECOVER
R6211
4700
ALARMO
ALARM_OUT
13B
P4903-9
M12V
MGND
POWER.L
SW5V
A12V
AGND
CDOWNL
DEW1
LOAD.+
LOAD.-
BIAS
CAMERA
SDAF
SCKF
SDAS
SCKS
M12V
2A
P1003-6
M_GND
1A
P1003-4,5
(TO POWER (1))
POWER_OFF (L)
30B
P1002-8
SW 5V
31A
P1002-4,5
A12V
6B
P1002-6
AGND
7B
P1002-1,2,3
(TO POWER (1))
C_DOWN (L)
32B
CASSETTE SW
DEW
3A
DEW SENSOR
LOADING_M(+)
3B
LOADING MOTOR
LOADING_M(-)
4B
LOADING MOTOR
BIAS_PRTCT
24B
P4001-2A
(TO AUDIO)
CAMERA_SW_OUT
18B
P4901-8
(TO REAR JACK)
SDA_F
20A
P6601-8
SCK_F
20B
P6601-7
(TO FRONT (1))
SDA_S
26A
P2001-7
SCK_S
27B
P2001-8
(TO SERVO)
VREF
SRET
TRET
VREF
CHANGE
TOU
S_REEL_ET
9A
P2701-15
T_REEL_ET
10A
P2701-18
V_REF
8B
P2701-9
CHANGE
9B
P2701-13
TOU
10B
P2701-17
(TO REEL DRIVE)

SYSTEM CONTROL TRs DC VOLTAGE CHART

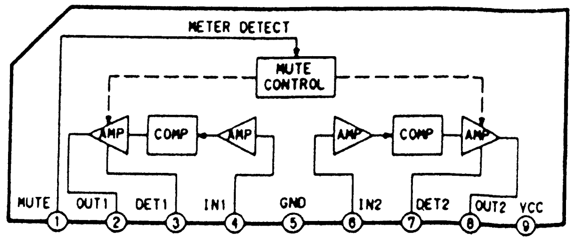
REF. NO.	Q6001			Q6002			Q6003			Q6004			Q6005			Q6006		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	0.9	11.8	0.7	11.1	0	11.6	11.6	0	11.1	0	0	0	0	0	0	0	5.3	0
REF. NO.	Q6007			Q6008														
MODE	E	C	B	E	C	B												
PLAY	0.6	0.6	1.3	0.6	1.3	0.4												
REF. NO.	QR2501			QR2502			QR2503			QR2504			QR2505			QR6001		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	0	11.9	0	0	0	5.0	0	11.9	0	0	0	5.0	0	0	5.0	5.3	0.7	4.4
REF. NO.	QR6002			QR6003			QR6004			QR6005			QR6006			QR6007		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	0	11.6	0	5.3	11.7	5.6	11.8	11.7	0	0	0	5.2	0	11.7	0	0	1.0	0
REF. NO.	QR6008			QR6009			QR6201			QR6202			QR6203			QR6204		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	0	9.7	0	0	3.0	0	0	0	0	0	5.3	0	0	0	5.3	0	11.8	0
REF. NO.	QR6205			QR6206			QR6207			QR6208			QR6209			QR6210		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	5.3	0	5.3	0	11.8	0	0	11.8	0	5.3	0	5.3	0	0.1	5.3	0	0	5.3



IC6002 MN1280-R
IC6003 MN1280-U


V1
OUTPUT CIRCUIT
POWER VOLTAGE DET
V2
③
②
①

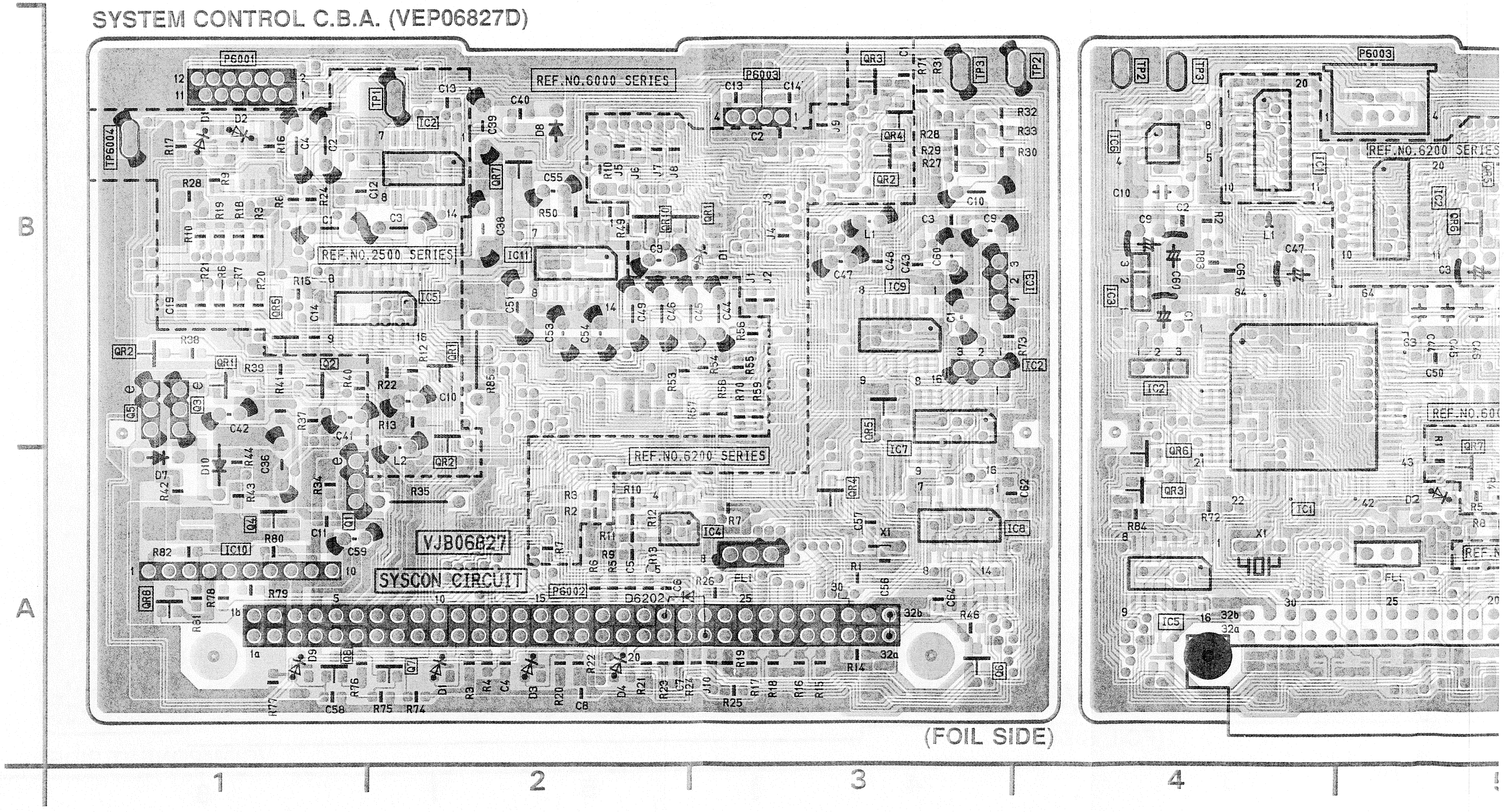
IC6010 M54649L

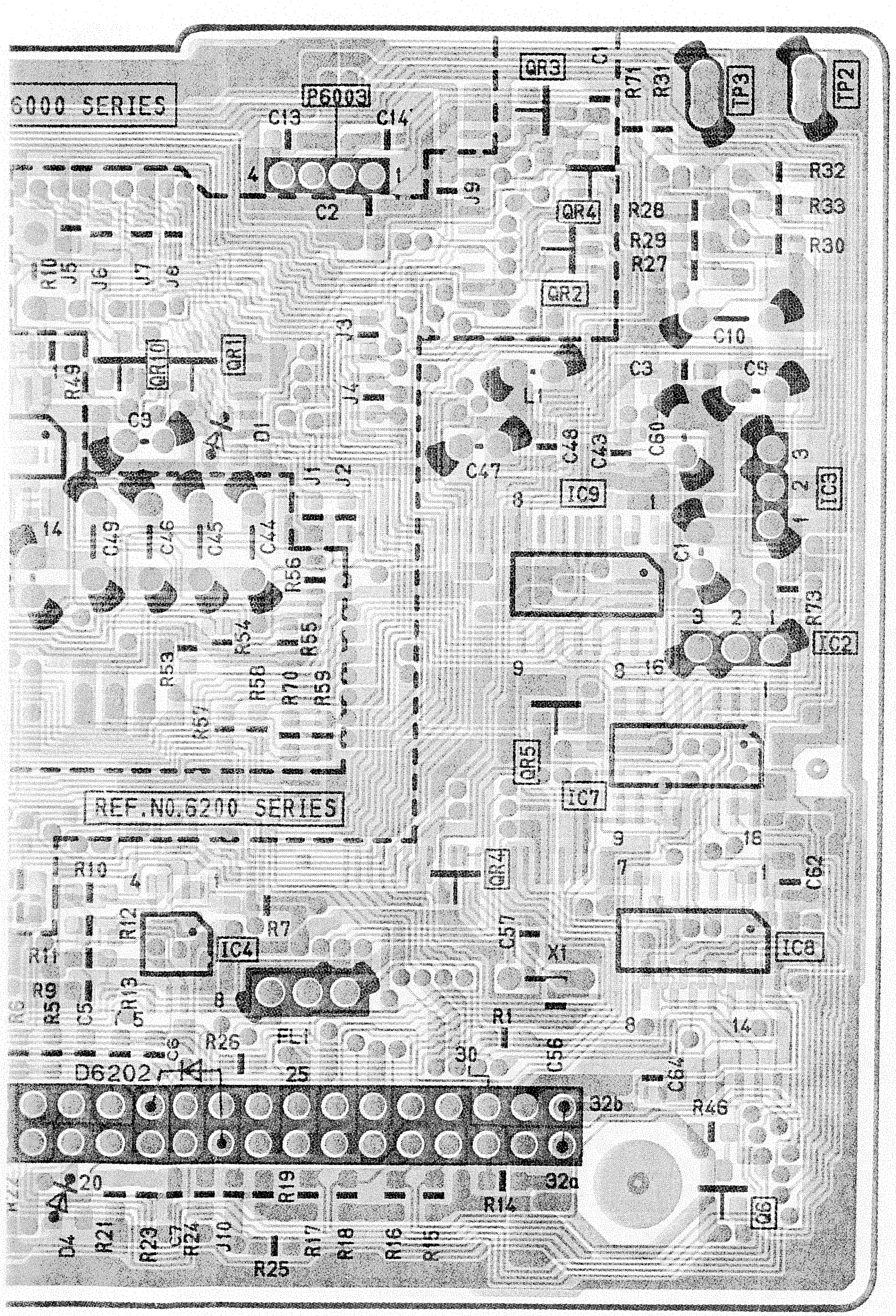

METER DETECT
MUTE CONTROL
AMP
COMP
AMP
AMP
COMP
AMP
MUTE
OUT1
DET1
IN1
GND
IN2
DET2
OUT2
VCC
①
②
③
④
⑤
⑥
⑦
⑧
⑨

SYSTEM CONTROL ICs DC VOLTAGE CHART

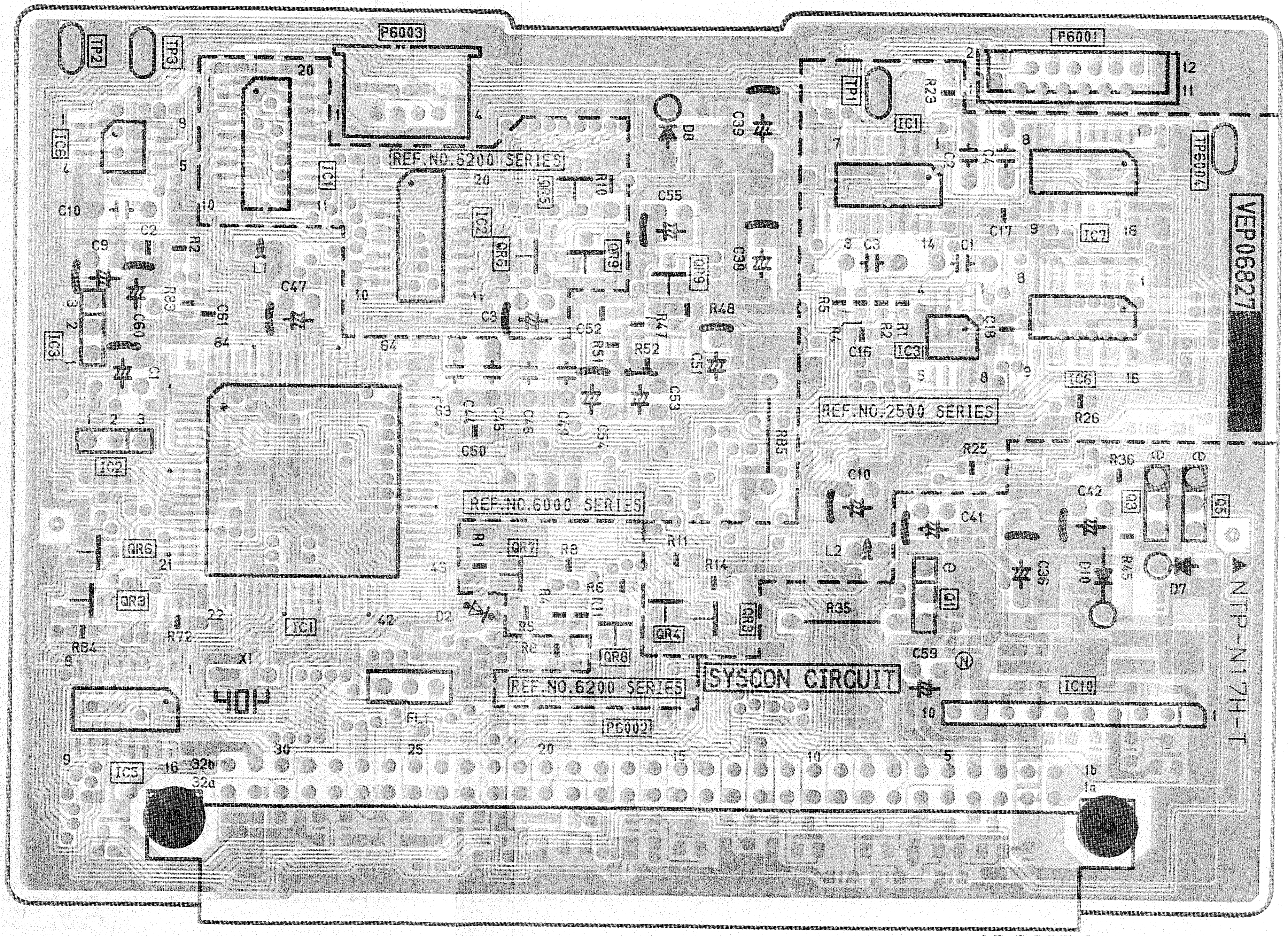
REF. NO.	IC2501																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PLAY	2.7	2.7	2.7	12.0	2.5	2.5	2.3	5.0	5.0	5.0	0	2.5	2.5	2.5						
REF. NO.	IC2502																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PLAY	2.5	2.5	2.4	12.0	2.5	2.5	2.5	2.5	2.5	2.4	0	1.6	1.6	1.6						
REF. NO.	IC2503																			
MODE	1	2	3	4	5	6	7	8												
PLAY	11.9	2.3	2.5	0	0.6	0.6	0	12.0												
REF. NO.	IC2505																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
PLAY	2.5	2.5	2.3	2.3	2.5	0	0	0	11.9	0	11.9	2.5	2.5	2.5	2.5	12.0				
REF. NO.	IC2506																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
PLAY	2.5	2.3	2.3	2.4	2.4	0.1	0.1	0.2	11.9	0	2.7	2.7	2.5	2.7	2.5	12.1				
REF. NO.	IC2507																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
PLAY	1.6	0.2	0.3	0.3	0	0	0	0	0	0	11.9	0.7	0.6	0.4	0.1	12.0				
REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	5.0	0	0	0	0	0	0	0	0	5.3	0	0	0	0	5.0	5.0	5.0	5.0	5.0
REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	2.7	1.4	0	5.3	5.0	0.2	4.3	2.5	0.1	0.2	2.5	2.5	0	0	5.0	5.3	5.3	0	5.3	2.3
REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY	3.3	3.0	5.3	5.0	0	5.0	0	4.9	5.0	4.8	0.2	4.8	4.7	4.7	0	0	0	0	0.4	0.2
REF. NO.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PLAY	1.2	1.0	1.5	2.5	2.5	2.7	5.0	2.5	2.6	0.6	4.0	5.0	5.0	3.2	3.2	5.0	0	3.2	0	1.8
REF. NO.	IC6001																			
MODE	81	82	83	84																
PLAY	5.0	0	0	4.4																
REF. NO.	IC6002										IC6003									
MODE	1	2	3								1	2	3							
PLAY	5.0	5.0	0								5.3	5.3	0							
REF. NO.	IC6004																			
MODE	1	2	3	4	5	6	7	8												
PLAY	0.1	5.0	1.2	0	0.1	1.2	0.1	5.3												
REF. NO.	IC6005																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
PLAY	5.3	5.3	0.3	5.3	0	5.3	5.3	0	3.7	5.3	3.7	3.0	2.5	2.5	0	5.3				
REF. NO.	IC6006																			
MODE	1	2	3	4	5	6	7	8												
PLAY	5.3	3.0	3.3	0	3.3	3.0	5.3	5.3												
REF. NO.	IC6007																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
PLAY	0	0	0	4.8	4.0	0	0	0	0	0	5.0	0.2	3.6	4.4	0	5.3				
REF. NO.	IC6008																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PLAY	5.0	3.5	0	5.6	5.0	5.0	0	5.0	5.0	5.2	2.4	3.7	3.7	5.3						
REF. NO.	IC6009																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
PLAY	0	5.3	0	0	0	0	5.3	0	5.3	0	0	0	5.3	5.3	0	5.3				
REF. NO.	IC6010																			
MODE	1	2	3	4	5	6	7	8	9	10										
PLAY	0	0.2	0.2	0	0	0	11.8	9.7	11.8	0.2										
REF. NO.	IC6011																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PLAY	4.0	4.0	4.0	11.7	1.0	1.0	1.0	2.5	2.5	2.5	0	0	0	10.6						
REF. NO.	IC6201																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	5.3	5.0	1.8	5.3	5.3	0	3.9	0	0	1.4	0	0	0	5.3	0	3.9	4.2	0	5.3
REF. NO.	IC6202																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	5.3	5.0	1.8	0	0	1.8	3.2	5.3	0	3.7	0	0	5.0	5.3	5.3	3.2	4.2	5.3	5.3

SYSTEM CONTROL C.B.A. (VEP06827D)


SYSTEM CONTROL C.B.A. (VEP06827D)
REF.NO.6000 SERIES
REF.NO.2500 SERIES
REF.NO.6200 SERIES
VJB06827
SYSCON CIRCUIT
P6001
P6002
P6003
TP6004
TP1
TP2
TP3
D6202
(FOIL SIDE)
B
A
1
2
3
4


6000 SERIES
P6003
QR3
TP3
TP2
IC9
IC3
IC2
IC7
IC8
IC4
REF.NO.6200 SERIES
D6202
32b
32a
FL1
X1

(FOIL SIDE)

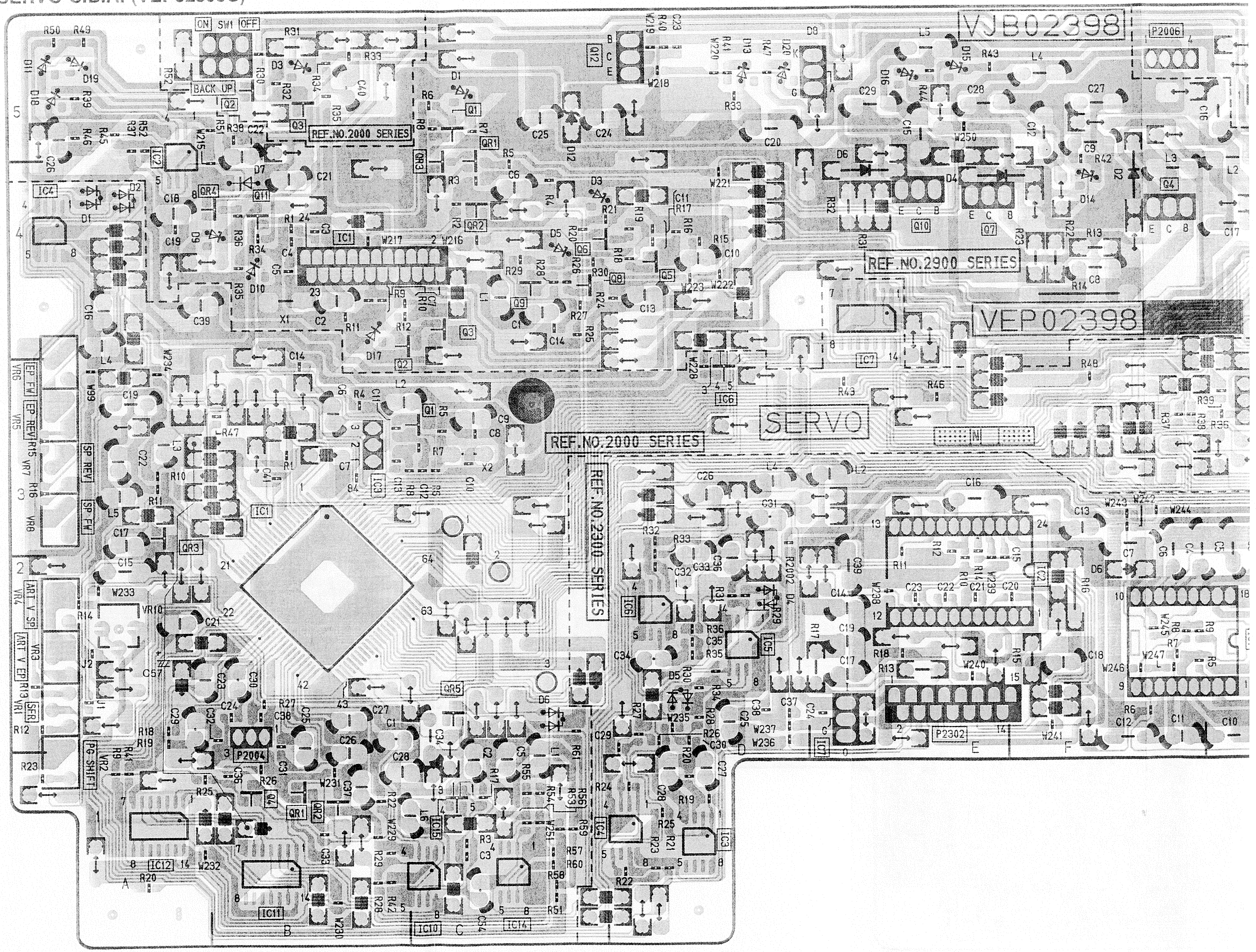

TP2
TP3
P6003
P6001
TP1
TP6004
VEP06827
REF.NO.6200 SERIES
REF.NO.2500 SERIES
REF.NO.6000 SERIES
SYSCON CIRCUIT
NTP-N17H-T
IC1
IC2
IC3
IC5
IC6
IC7
IC10
P6002
X1
40P
FL1
32b
32a
1b
1a

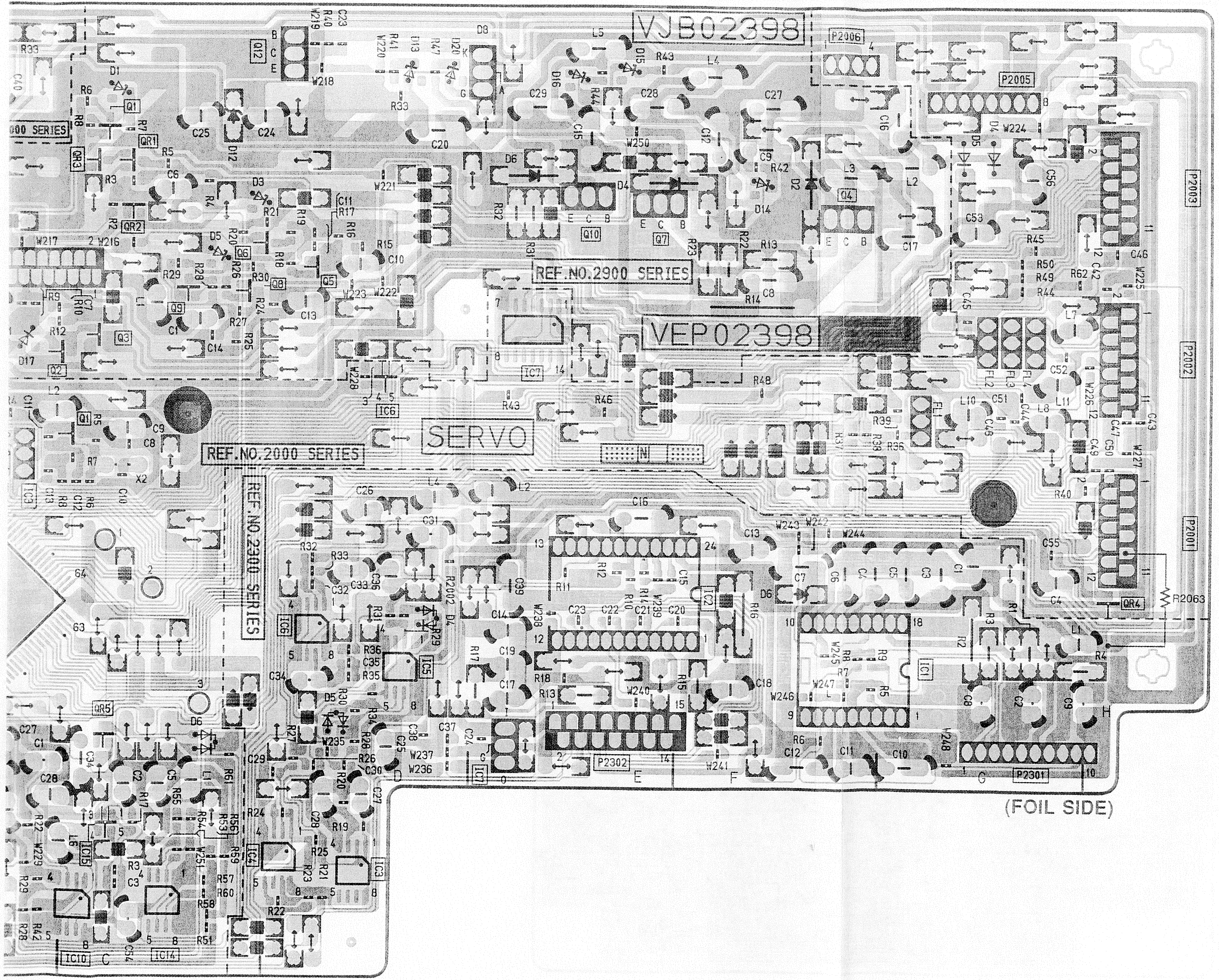
(COMPONENT SIDE)

3 4 5 6

SERVO C.B.A. (VEP02398C)

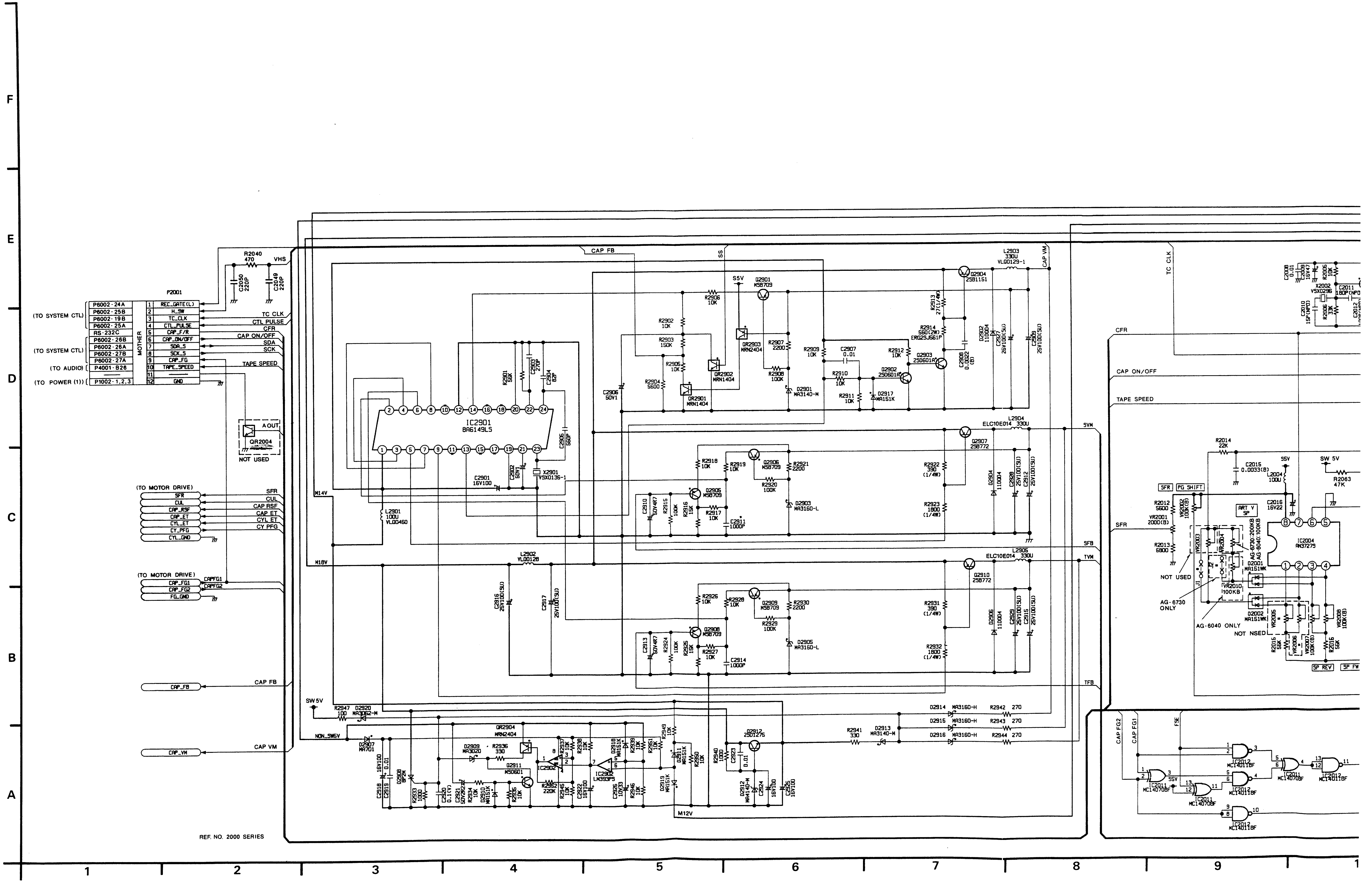
SERVO C.B.A. (VEP02398C)

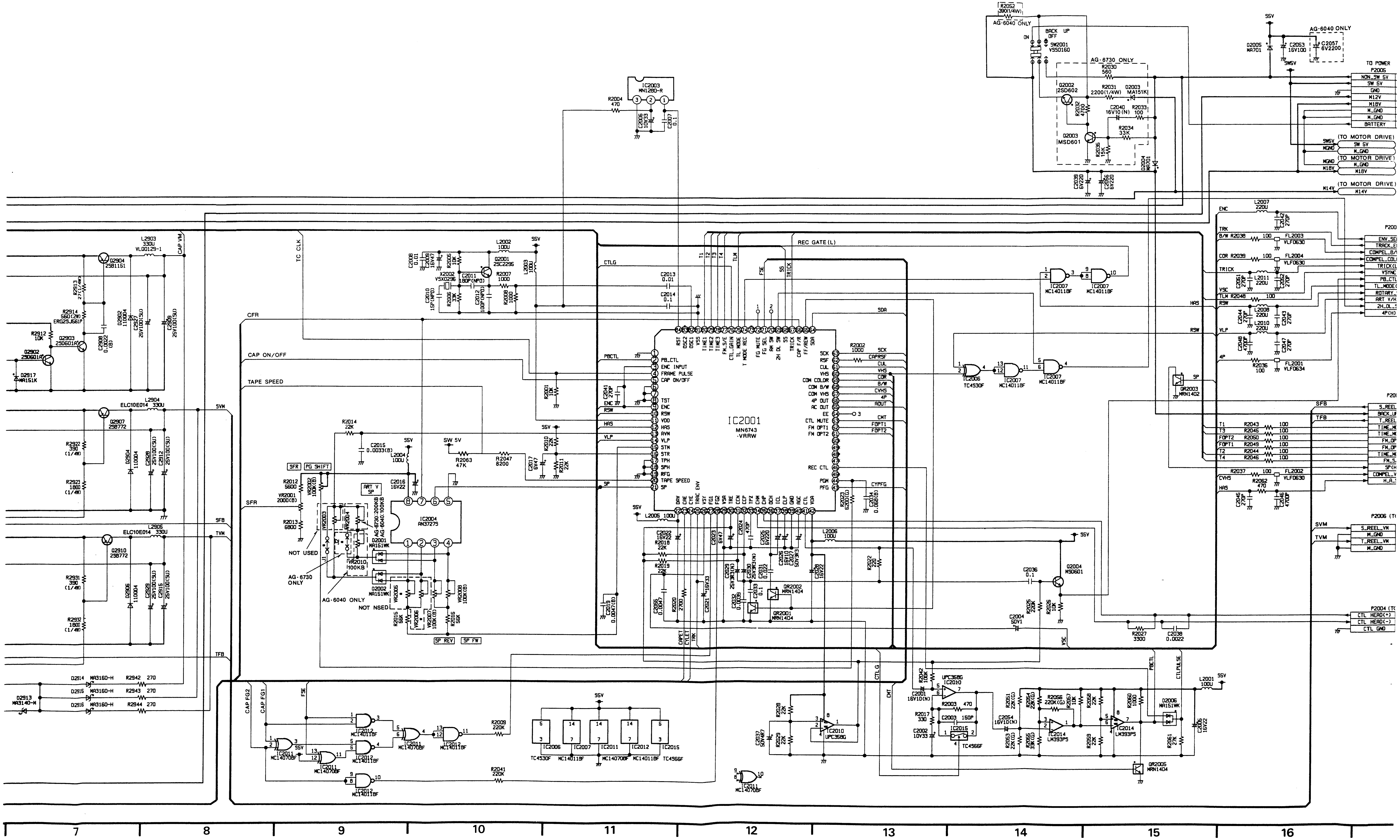

VJB02398
VEP02398
SERVO
REF.NO.2000 SERIES
REF.NO.2900 SERIES
REF.NO.2300 SERIES
ON SW1 OFF
BACK UP
SP REV
SP FW
EP FW
EP REV
ART V SP
ART V EP
PG SHIFT
SER
IC1
P2004
P2006
P2302

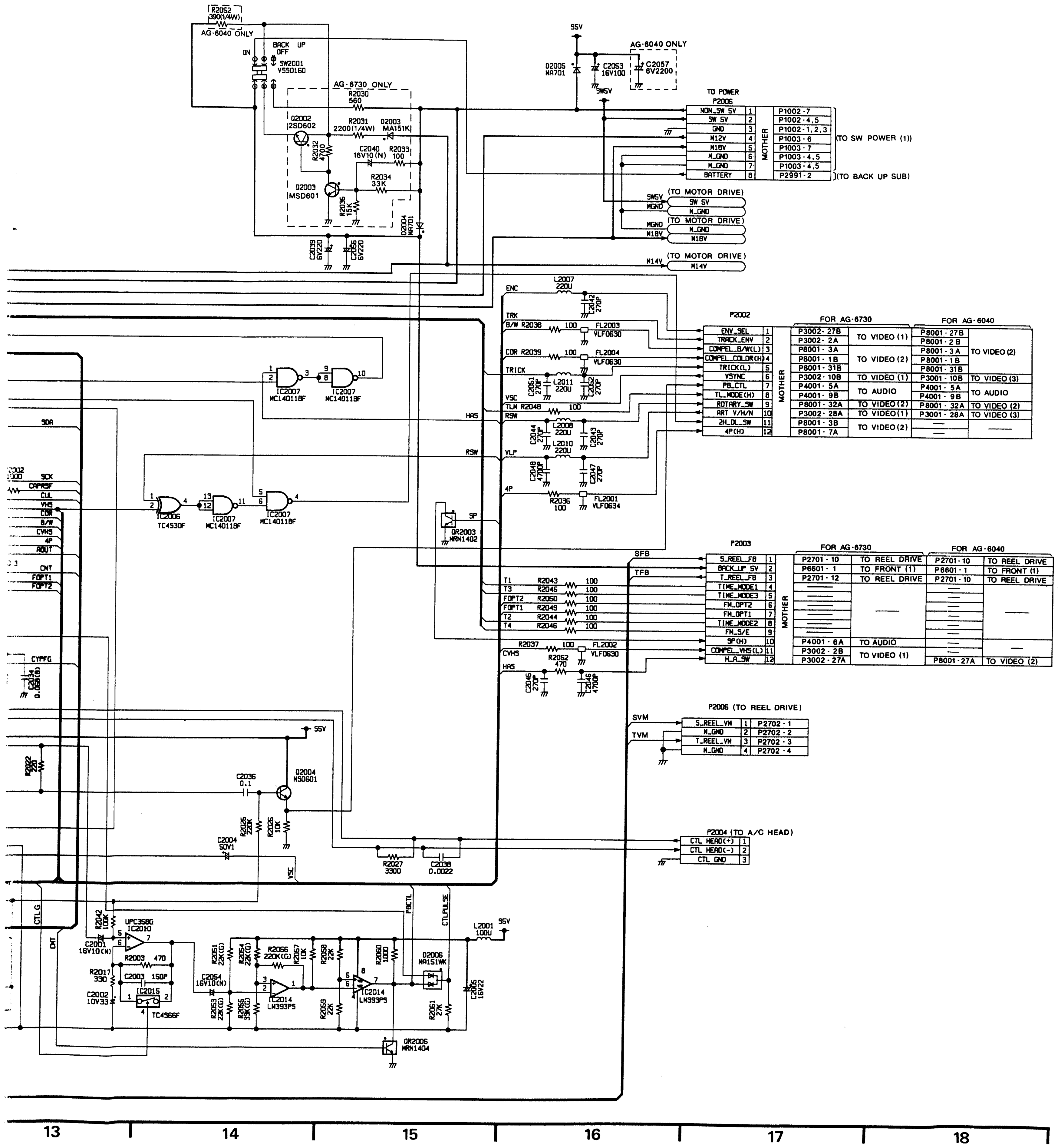

VJB02398
VEP02398
SERVO
REF.NO.2000 SERIES
REF.NO.2900 SERIES
REF.NO.2300 SERIES
2000 SERIES
P2906
P2005
P2003
P2002
P2001
P2302
P2301
R2063
QR4
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC10
IC14
IC15
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
Q12
QR1
QR2
QR3
QR5
E
F
G
H
C
D

(FOIL SIDE)

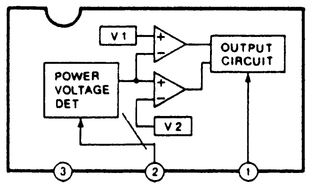
SERVO SCHEMATIC DIAGRAM


F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
P2001
(TO SYSTEM CTL)
P6002-24A
P6002-25B
P6002-19B
P6002-25A
RS-232C
P6002-26B
P6002-26A
P6002-27B
P6002-27A
(TO AUDIO)
P4001-B26
(TO POWER (1))
P1002-1,2,3
MOTHER
REC_GATE(L)
H_SW
TC_CLK
CTL_PULSE
CAP_F/R
CAP_ON/OFF
SDA_S
SCK_S
CAP_FG
TAPE_SPEED
GND
R2040 470
VHS
C2050 220P
C2049 220P
TC CLK
CTL PULSE
CFR
CAP ON/OFF
SDA
SCK
TAPE SPEED
A OUT
QR2004
NOT USED
(TO MOTOR DRIVE)
SFR
CUL
CAP_RSF
CAP_ET
CYL_ET
CY_PFG
CYL_GND
CAP RSF
CAP ET
CYL ET
CY PFG
CAPFG1
CAPFG2
CAP_FG1
CAP_FG2
FG_GND
CAP_FB
CAP FB
CAP_VM
CAP VM
IC2901
BA6149LS
R2901 56K
C2903 270P
C2904 82P
C2905 560P
C2901 16V100
C2902 50V1
X2901 VSX0135-1
L2901 100U VL00460
M14V
M18V
L2902 YL00128
C2916 25V100(SU)
C2917 25V100(SU)
SS
S5V
Q2901 MS8709
R2906 10K
R2902 10K
R2903 150K
R2905 10K
R2904 5600
C2906 50V1
QR2903 MRN2404
QR2902 MRN1404
QR2901 MRN1404
R2907 2200
R2908 100K
D2901 MA3140-M
R2909 10K
C2907 0.01
R2910 10K
R2911 10K
D2917 MA151K
Q2902 2SD601A
R2912 10K
Q2903 2SD601A
R2913 27(1/4W)
R2914 560(2W) ERG2SJ561P
C2908 0.0022(B)
D2902 11D004
C2927 25V100(SU)
C2909 25V100(SU)
L2903 330U VLQ0129-1
Q2904 2SB1151
CAP VM
SVM
L2904 ELC10E014 330U
Q2907 2SB772
R2918 10K
R2919 10K
Q2906 MS8709
R2921 2200
R2920 100K
Q2905 MS8709
C2910 50V4R7
R2915 100K
R2916 15K
R2917 10K
C2911 1000P
D2903 MA3160-L
R2922 390 (1/4W)
R2923 1800 (1/4W)
D2904 11D004
C2928 25V100(SU)
C2912 25V100(SU)
SFB
TVM
L2905 ELC10E014 330U
Q2910 2SB772
R2926 10K
R2928 10K
Q2909 MS8709
R2930 2200
R2929 100K
Q2908 MS8709
C2913 50V4R7
R2924 100K
R2925 15K
R2927 10K
C2914 1000P
D2905 MA3160-L
R2931 390 (1/4W)
R2932 1800 (1/4W)
D2906 11D004
C2929 25V100(SU)
C2915 25V100(SU)
TFB
SW5V
R2947 100
D2920 MA3062-M
NON_SW5V
D2907 MA701
C2918 16V100
C2919 0.01
C2920 0.1(Y)
D2908 6P2K
R2933 1000
QR2904 MRN2404
D2909 MA3020
R2936 330
D2911 MS0601
C2921 50V2R2
R2934 10K
D2910 MA151K
R2935 10K
R2952 220K
IC2902
R2945 10K
C2922 16V100
IC2902 LM393PS
R2937 10K
R2938 10K
D2918 MA151K
R2939 10K
R2951 10K
R2949 10K
C2926 10V33
R2946 10K
D2919 MA151K
D2911 MA151K
R2950 10K
M12V
R2940 1000
C2923 0.01
Q2912 2SD1275
D2912 MA3140-M
C2924 16V100
C2925 16V100
R2941 330
D2913 MA3140-M
D2914 MA3160-H
D2915 MA3160-H
D2916 MA3160-H
R2942 270
R2943 270
R2944 270
REF. NO. 2000 SERIES
TC CLK
C2008 0.01
C2009 16V47
R2005 10K
X2002 VSX0296
C2011 180P(NPO)
C2010 15P(NPO)
R2006 33K
CFR
CAP ON/OFF
TAPE SPEED
SFR
R2014 22K
C2015 0.0033(B)
S5V
SW 5V
L2004 100U
R2063 47K
SFR
PG SHIFT
R2012 5600
VR2002 100K(B)
VR2001 2000(B)
ART V SP
C2016 16V22
IC2004 AN3727S
R2013 6800
NOT USED
VR2003
VR2004
AG-6730:200KB
AG-6040:100KB
D2001 MA151WK
VR2010 100KB
J1
AG-6730 ONLY
AG-6040 ONLY
D2002 MA151WK
NOT USED
VR2005
VR2006
VR2007 100K(B)
R2015 56K
R2016 56K
VR2008 100K(B)
SP REV
SP FW
CAP FG2
CAP FG1
FSE
IC2011 MC14070BF
IC2012 MC14011BF
IC2011 MC14070BF
IC2012 MC14011BF
IC2011 MC14070BF
IC2012 MC14011BF
IC2012 MC14011BF
S5V

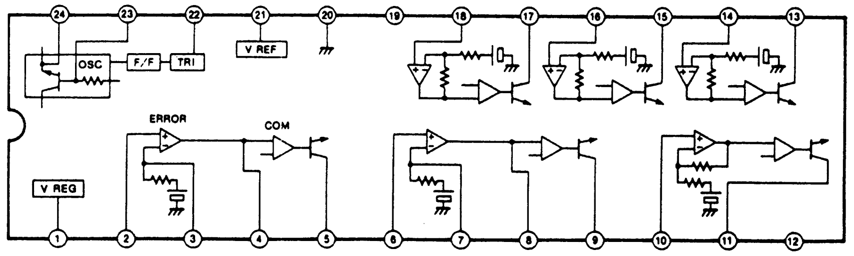

IC2001
MN6743
-VRRW
IC2003
MN1280-R
IC2004
AN37275
IC2006 TC4530F
IC2007 MC14011BF
IC2011 MC14070BF
IC2012 MC14011BF
IC2015 TC4566F
IC2010 UPC358G
IC2014 LM393PS
Q2001 2SC2295
Q2002 2SD602
Q2003 MSD601
Q2004 MSD601
Q2904 2SB1151
Q2903 2SD601A
Q2902 2SD601A
Q2907 2SB772
Q2910 2SB772
D2917 MA151K
D2913 MA3140-M
D2914 MA3160-H
D2915 MA3160-H
D2916 MA3160-H
D2005 MA701
D2006 MA151WK
D2003 MA151K
D2004 MA701
D2001 MA151WK
D2002 MA151WK
DR2001 MRN1404
DR2002 MRN1404
DR2003 MRN1402
DR2005 MRN1404
SW2001 VSS0160
BACK UP
OFF
ON
AG-6040 ONLY
AG-6730 ONLY
AG-6730
ONLY
AG-6040 ONLY
AG-6730:200KB
AG-6040:100KB
NOT USED
NOT NSED
X2002 VSX0296
SFR
PG SHIFT
ART V SP
SP REV
SP FW
CFR
CAP ON/OFF
TAPE SPEED
TC CLK
CTLG
REC GATE (L)
CAP FG2
CAP FG1
FSE
CTL G
CMT
SVM
TVM
SFB
TFB
CAP VM
PBCTL
ENC
RSW
HAS
VLP
SP
SDA
SCK
CAPRSF
CUL
VHS
COR
B/W
CVHS
4P
AOUT
CYPFG
TRK
TRICK
VSC
TLM
T1
T2
T3
T4
FOPT1
FOPT2
CTLPULSE
PB_CTL
ENC INPUT
FRAME PULSE
CAP ON/OFF
TST
VDD
RVM
STM
STR
TPH
SPH
RFG
TAPE SPEED
REC CTL
PGM
PFG
CTL MUTE
FN OPT1
FN OPT2
COM COLOR
COM B/W
COM VHS
4P OUT
AC OUT
EE
TO POWER
P2005
NON_SW 5V
SW 5V
GND
M12V
M18V
M_GND
BATTERY
(TO MOTOR DRIVE)
SW5V
MGND
M18V
M14V
P2004
CTL HEAD(+)
CTL HEAD(-)
CTL GND
P2006
S_REEL_VM
T_REEL_VM
ENV_SE
TRACK_E
COMPEL_B
TRICK
VSYNC
PB_CTL
TL_MODE
ROTARY
ART V/H
2H_DL
4P(H)
S_REEL
BACK_UP
T_REEL
TIME_M
FM_OP
TIME_N
FM_S
SP(H)
COMPEL_V
H_A
R2004 470
R2052 390(1/4W)
R2030 560
R2031 2200(1/4W)
R2032 4700
R2033 100
R2034 33K
R2035 15K
C2039 6V220
C2066 6V220
C2040 16V10(N)
C2053 16V100
C2057 6V2200
R2001 10K
R2002 1000
R2005 10K
R2006 33K
R2007 1000
R2008 1000
R2009 220K
R2010 22K
R2011 22K
R2012 5600
R2013 6800
R2014 22K
R2015 56K
R2016 56K
R2017 330
R2018 22K
R2019 22K
R2020 2700
R2022 220
R2023 6200(G)
R2025 220K
R2026 10K
R2027 3300
R2028 22K
R2029 22K
R2036 100
R2037 100
R2038 100
R2039 100
R2041 220K
R2042 100K
R2043 100
R2044 100
R2045 100
R2046 100
R2047 8200
R2048 100
R2049 100
R2050 100
R2051 22K(G)
R2053 22K(G)
R2056 220K(G)
R2057 10K
R2058 22K
R2059 22K
R2060 1000
R2061 27K
R2062 470
R2063 47K
R2064 22K(G)
R2065 33K(G)
VR2001 2000(B)
VR2002 100K(B)
VR2003
VR2004
VR2005
VR2006
VR2007 100K(B)
VR2008 100K(B)
VR2010 100KB
C2001 16V10(N)
C2002 10V33
C2003 150P
C2004 50V1
C2005 16V22
C2006 10V33
C2007 0.1
C2008 0.01
C2009 16V47
C2010 15P(NPO)
C2011 180P(NPO)
C2012 100P(NPO)
C2013 0.01
C2014 0.1
C2015 0.0033(B)
C2016 16V22
C2017 6V47
C2019 0.0047(B)
C2021 16V33
C2022 16V22
C2023 6V47
C2024 470P
C2025 6V220
C2026 16V22
C2027 50V3R3
C2028 16V22
C2029 25V3R3(N)
C2030 25V3R3(N)
C2031 0.022
C2032 0.0039
C2033 0.1
C2034 0.068(B)
C2036 0.1
C2037 50V4R7
C2038 0.0022
C2041 270P
C2042 270P
C2043 270P
C2044 270P
C2045 270P
C2046 4700P
C2047 270P
C2048 4700P
C2051 270P
C2052 270P
C2054 16V10(N)
C2065 0.0047
L2001 100U
L2002 100U
L2003 100U
L2004 100U
L2005 100U
L2006 100U
L2007 220U
L2008 220U
L2010 220U
L2011 220U
FL2001 VLF0634
FL2002 VLF0630
FL2003 VLF0630
FL2004 VLF0630
L2903 VL00129-1
L2904 330U
L2905 330U
ELC10E014
R2912 10K
R2913 27(1/4W)
R2914 560(2W) ERG2SJ561P
C2908 0.0022(B)
D2902 11D004
C2907 25V100(SU)
C2909 25V100(SU)
R2922 390 (1/4W)
R2923 1800 (1/4W)
D2904 11D004
C2928 25V100(SU)
C2912 25V100(SU)
R2931 390 (1/4W)
R2932 1800 (1/4W)
D2906 11D004
C2929 25V100(SU)
C2915 25V100(SU)
R2942 270
R2943 270
R2944 270
5SV
SW 5V
SW5V
7
8
9
10
11
12
13
14
15
16


AG-6040 ONLY
AG-6730 ONLY
BACK UP
SW2001
Q2002 2SD602
Q2003 MSD601
D2005 MA701
TO POWER
P2005
NON_SW 5V
SW 5V
GND
M12V
M18V
M_GND
BATTERY
MOTHER
(TO SW POWER (1))
(TO BACK UP SUB)
(TO MOTOR DRIVE)
P2002
FOR AG-6730
FOR AG-6040
ENV_SEL
TRACK_ENV
COMPEL_B/W(L)
COMPEL_COLOR(H)
TRICK(L)
VSYNC
PB_CTL
TL_MODE(H)
ROTARY_SW
ART V/H/N
2H_DL_SW
4P(H)
TO VIDEO (1)
TO VIDEO (2)
TO VIDEO (3)
TO AUDIO
IC2006 TC4530F
IC2007 MC14011BF
P2003
S_REEL_FB
BACK_UP 5V
T_REEL_FB
TIME_MODE1
TIME_MODE3
FM_OPT2
FM_OPT1
TIME_MODE2
FM_S/E
SP(H)
COMPEL_VHS(L)
H_A_SW
TO REEL DRIVE
TO FRONT (1)
P2006 (TO REEL DRIVE)
S_REEL_VM
T_REEL_VM
P2004 (TO A/C HEAD)
CTL HEAD(+)
CTL HEAD(-)
CTL GND
Q2004 MSD601
IC2010 UPC358G
IC2015 TC4966F
IC2014 LM393PS
D2006 MA151WK
QR2003 MRN1402
QR2005 MRN1404
13
14
15
16
17
18

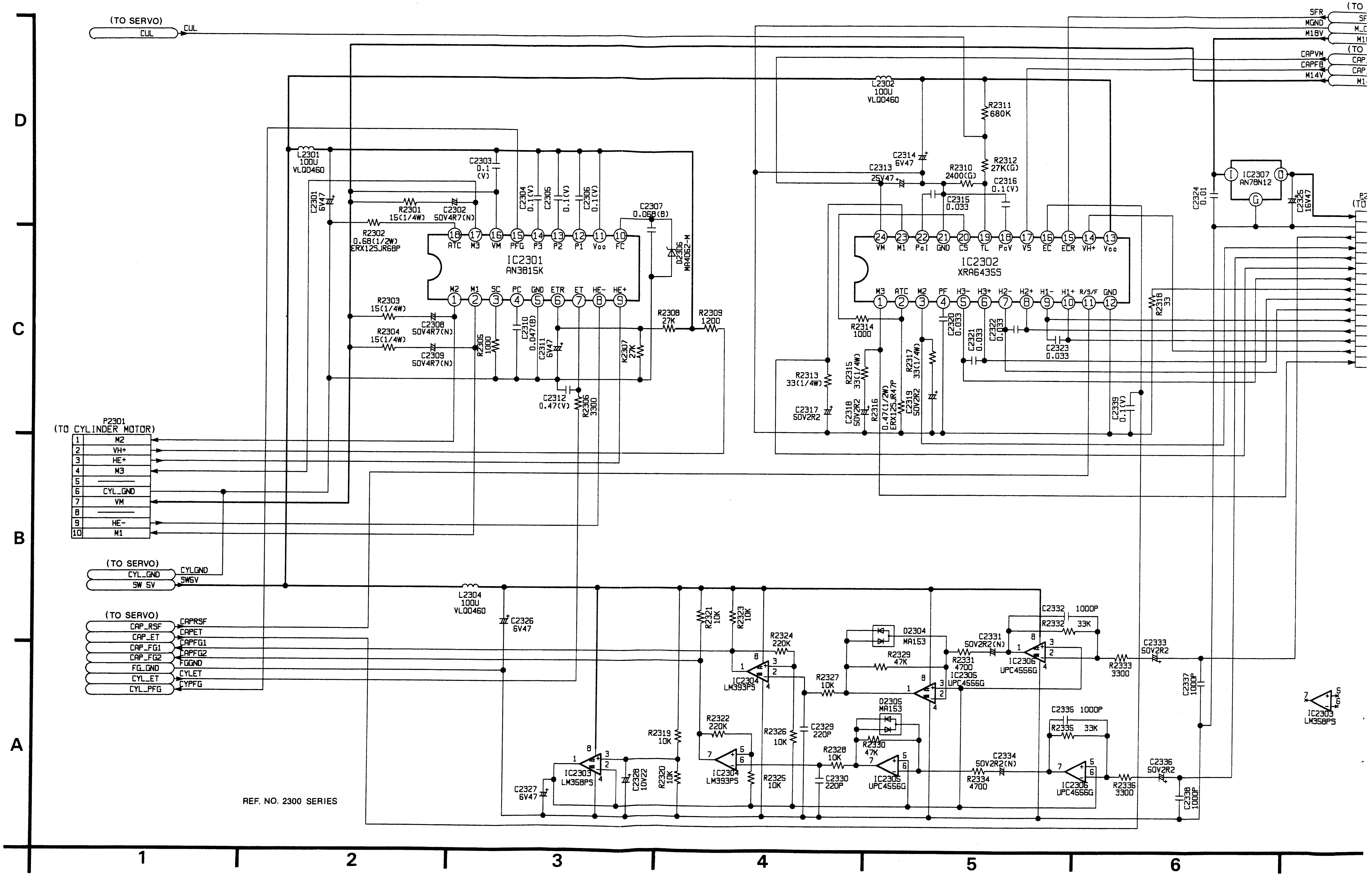
IC2003 MN1280-R


V1
V2
POWER VOLTAGE DET
OUTPUT CIRCUIT
3
2
1

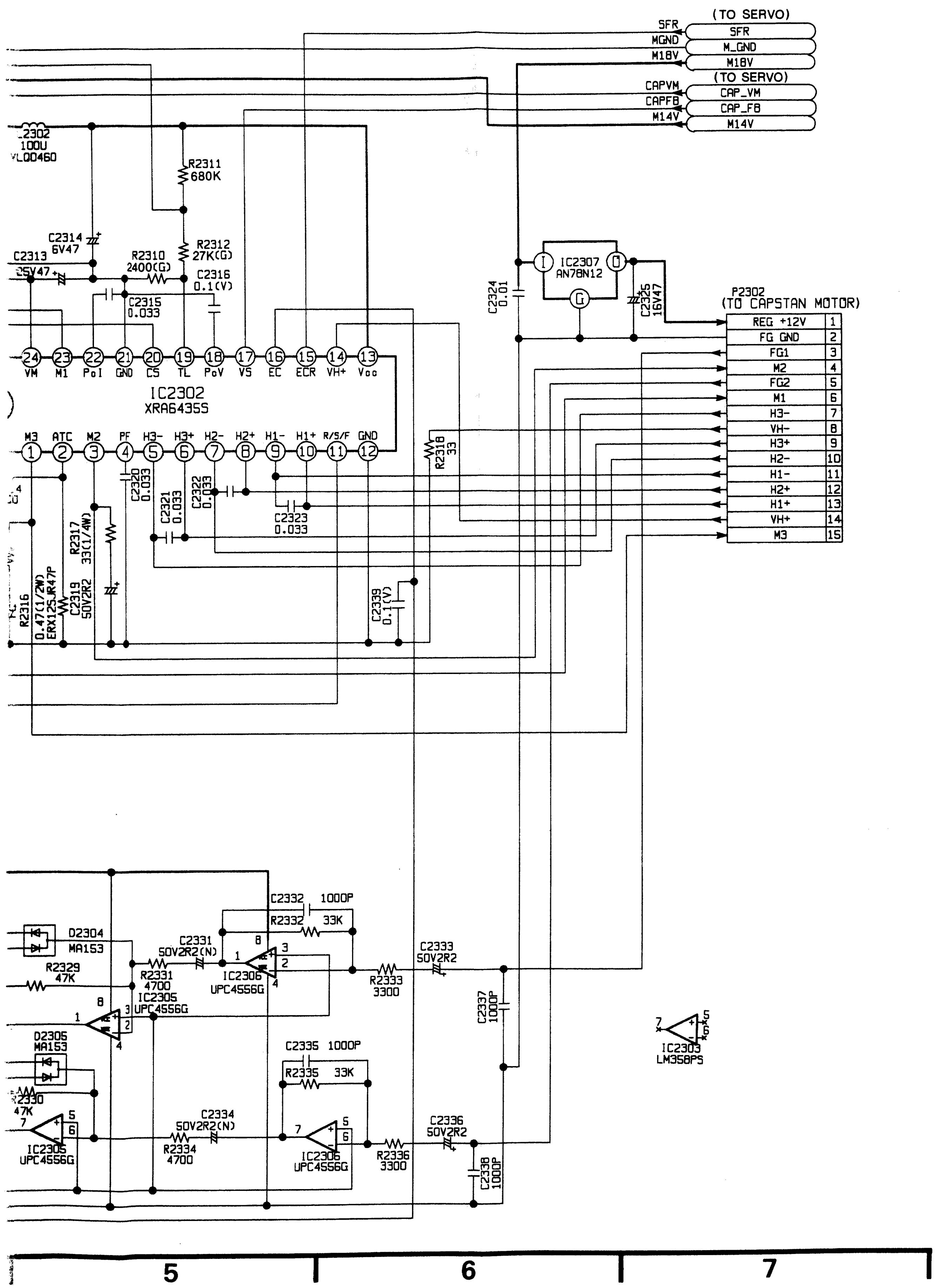
IC2901 BA6149LS


OSC
F/F
TRI
V REF
V REG
ERROR
COM
24
23
22
21
20
19
18
17
16
15
14
13
1
2
3
4
5
6
7
8
9
10
11
12

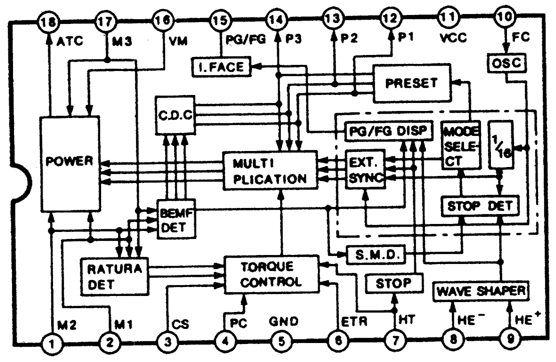
MOTOR DRIVE SECTION SCHEMATIC DIAGRAM


D
C
B
A
1
2
3
4
5
6
(TO SERVO)
CUL
(TO SERVO)
CYL_GND
SW 5V
CYLGND
SWSV
(TO SERVO)
CAP_RSF
CAP_ET
CAP_FG1
CAP_FG2
FG_GND
CYL_ET
CYL_PFG
CAPRSF
CAPET
CAPFG1
CAPFG2
FGGND
CYLET
CYPFG
P2301
(TO CYLINDER MOTOR)
1 M2
2 VH+
3 HE+
4 M3
5
6 CYL_GND
7 VM
8
9 HE-
10 M1
L2301 100U VLQ0460
C2301 6V47
C2303 0.1 (V)
R2301 15(1/4W)
C2302 50V4R7(N)
R2302 0.68(1/2W) ERX12SJR68P
C2304 0.1(V)
C2305
C2306 0.1(V)
C2307 0.068(B)
D2306 MA4062-M
IC2301 AN3815K
ATC M3 VM PFG P3 P2 P1 Vcc FC
M2 M1 SC PC GND ETR ET HE- HE+
R2303 15(1/4W)
C2308 50V4R7(N)
R2304 15(1/4W)
C2309 50V4R7(N)
R2305 1000
C2310 0.047(B)
C2311 6V47
R2307 27K
R2308 27K
R2309 1200
C2312 0.47(V)
R2306 3300
L2302 100U VLQ0460
R2311 680K
R2312 27K(G)
C2314 6V47
C2313 25V47
R2310 2400(G)
C2316 0.1(V)
C2315 0.033
IC2302 XRA6435S
VM M1 PoI GND CS TL PoV VS EC ECR VH+ Vcc
M3 ATC M2 PF H3- H3+ H2- H2+ H1- H1+ R/S/F GND
R2314 1000
C2320 0.033
C2321 0.033
C2322 0.033
C2323 0.033
R2318 33
R2313 33(1/4W)
C2317 50V2R2
R2315 33(1/4W)
C2318 50V2R2
R2316 0.47(1/2W) ERX12SJR47P
C2319 50V2R2
R2317 33(1/4W)
C2339 0.1(V)
C2324 0.01
IC2307 AN78N12
I O G
C2325 16V47
SFR
MGND
M18V
CAPVM
CAPFG
M14V
(TO
(TO
L2304 100U VLQ0460
C2326 6V47
R2321 10K
R2323 10K
R2324 220K
IC2304 LM393PS
D2304 MA153
R2329 47K
C2331 50V2R2(N)
R2331 4700
IC2305 UPC4556G
C2332 1000P
R2332 33K
IC2306 UPC4556G
R2333 3300
C2333 50V2R2
C2337 1000P
R2327 10K
C2329 220P
R2326 10K
R2322 220K
D2305 MA153
R2330 47K
R2328 10K
C2330 220P
R2325 10K
C2334 50V2R2(N)
R2334 4700
C2335 1000P
R2335 33K
R2336 3300
C2336 50V2R2
C2338 1000P
R2319 10K
R2320 10K
C2327 6V47
IC2303 LM358PS
C2328 10V22
IC2303 LM358PS

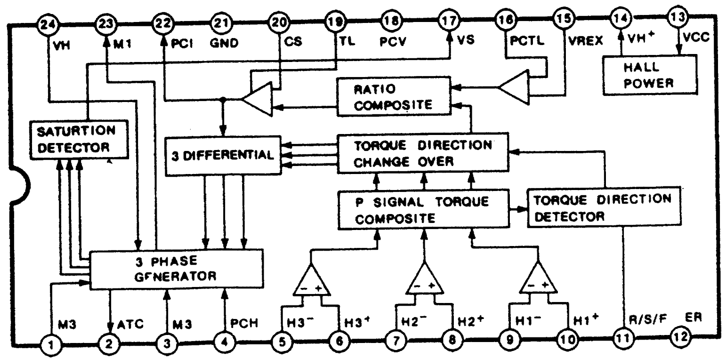
REF. NO. 2300 SERIES


(TO SERVO)
SFR
MGND
M18V
M_GND
CAPVM
CAPFB
M14V
CAP_VM
CAP_FB
R2311
680K
R2312
27K(G)
R2310
2400(G)
C2314
6V47
C2313
25V47
C2315
0.033
C2316
0.1(V)
100U
IC2307
AN78N12
C2324
0.01
C2325
16V47
P2302
(TO CAPSTAN MOTOR)
REG +12V
FG GND
FG1
M2
FG2
M1
H3-
VH-
H3+
H2-
H1-
H2+
H1+
VH+
M3
IC2302
XRA6435S
VM M1 Pol GND CS TL PoV VS EC ECR VH+ Vcc
M3 ATC M2 PF H3- H3+ H2- H2+ H1- H1+ R/S/F GND
R2318
33
C2320
0.033
C2321
0.033
C2322
0.033
C2323
0.033
R2317
33(1/4W)
R2316
0.47(1/2W)
ERX12S R47P
C2319
50V2R2
C2339
0.1(V)
D2304
MA153
R2329
47K
C2331
50V2R2(N)
R2331
4700
IC2305
UPC4556G
IC2306
UPC4556G
C2332 1000P
R2332 33K
R2333
3300
C2333
50V2R2
C2337
1000P
D2305
MA153
R2330
47K
C2334
50V2R2(N)
R2334
4700
C2335 1000P
R2335 33K
R2336
3300
C2336
50V2R2
C2338
1000P
IC2303
LM358PS
5
6
7

IC2301 AN3815K

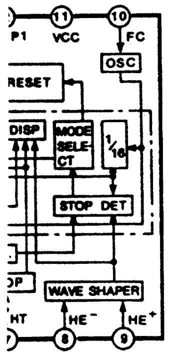

ATC
M3
VM
PG/FG
P3
P2
P1
VCC
FC
I.FACE
PRESET
OSC
C.D.C
POWER
MULTI PLICATION
PG/FG DISP
MODE SELE-CT
1/16
EXT. SYNC
BEMF DET
STOP DET
RATURA DET
TORQUE CONTROL
S.M.D.
STOP
WAVE SHAPER
M2
M1
CS
PC
GND
ETR
HT
HE-
HE+

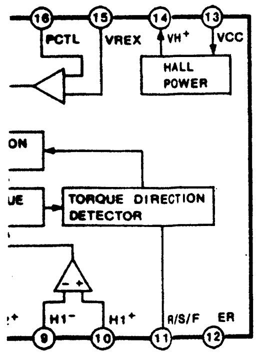
IC2302 XRA6435S


VH
M1
PCI
GND
CS
TL
PCV
VS
PCTL
VREX
VH+
VCC
HALL POWER
RATIO COMPOSITE
SATURTION DETECTOR
3 DIFFERENTIAL
TORQUE DIRECTION CHANGE OVER
P SIGNAL TORQUE COMPOSITE
TORQUE DIRECTION DETECTOR
3 PHASE GENERATOR
M3
ATC
M3
PCH
H3-
H3+
H2-
H2+
H1-
H1+
R/S/F
ER

SERVO ICs DC VOLTAGE CHART

REF. NO.	IC2001															
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PLAY	0	0.2	4.6	0	5.0	0	0	0	4.6	2.5	4.9	0	0	0	0	2.5
REF. NO.	IC2001															
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
PLAY	4.9	5.0	2.6	2.5	2.3	2.4	2.5	2.5	0	2.5	2.7	2.6	4.9	0	0	0
REF. NO.	IC2001															
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56
PLAY	2.6	4.9	1.3	2.8	4.0	0	0	0	0	0	0	4.9	0	0	0	0.2
REF. NO.	IC2001															
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76
PLAY	4.9	0	4.9	4.9	4.9	0	4.9	0	0	0	4.9	0	0	0	0	4.9
REF. NO.	IC2001															
MODE	81	82	83	84												
PLAY	0	2.4	2.4	4.9												
REF. NO.	IC2003										IC2004					
MODE	1	2	3								1	2	3	4	5	6
PLAY	4.9	4.9	0								0.7	0.7	2.6	4.9	0	0
REF. NO.	IC2006															
MODE	1	2	3	4	5											
PLAY	4.9	4.9	0	5.0	5.0											
REF. NO.	IC2007															
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
PLAY	0	0	5.0	4.8	0	0	0	5.0	5.0	0.2	0	5.0	5.0	5.0		
REF. NO.	IC2010															
MODE	1	2	3	4	5	6	7	8								
PLAY	2.5	2.5	2.5	0	2.5	2.5	2.6	4.9								
REF. NO.	IC2011															
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
PLAY	2.5	2.5	2.4	2.5	2.5	5.0	0	1.9	1.9	5.0	0	5.0	4.9	5.0		
REF. NO.	IC2012															
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
PLAY	4.9	2.5	2.5	5.0	2.3	0	0	2.5	2.5	2.5	2.5	2.5	2.5	5.0		
REF. NO.	IC2014										IC2015					
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	
PLAY	4.9	2.4	3.1	0	2.5	4.9	0.4	5.0			2.4	2.4	0	4.9	5.0	
REF. NO.	IC2301															
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PLAY	13.5	13.5	0.4	1.1	0	2.5	2.5	0.6	0.5	2.7	5.1	3.7	3.7	3.7	1.5	13.1
REF. NO.	IC2302															
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PLAY	1.6	0	1.7	1.4	2.1	2.0	2.1	2.1	2.1	2.0	0	0	5.1	3.7	2.8	2.6
REF. NO.	IC2302															
MODE	21	22	23	24												
PLAY	0	0.6	2.5	10.8												
REF. NO.	IC2303										IC2304					
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6
PLAY	2.6	2.6	2.6	0	1.9	1.9	0.1	5.1			2.5	2.5	2.6	0	2.6	2.5
REF. NO.	IC2305										IC2306					
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6
PLAY	2.5	2.6	2.6	0	2.6	2.6	2.5	5.1			2.6	2.6	2.6	0	2.6	2.6
REF. NO.	IC2307															
MODE	I	G	O													
PLAY	19.8	0	12.0													
REF. NO.	IC2901															
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PLAY	13.0	3.0	3.1	3.2	18.3	3.0	3.1	3.1	17.6	0.8	0.7	0	1.5	2.6	0.5	0.8
REF. NO.	IC2901															
MODE	21	22	23	24												
PLAY	2.5	2.4	—	2.7												
REF. NO.	IC2902															
MODE	1	2	3	4	5	6	7	8								
PLAY	0.1	5.1	2.6	0	2.6	—	4.4	5.1								





SERVO ICs DC VOLTAGE CHART

REF. NO.	IC2001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0	0.2	4.6	0	5.0	0	0	0	4.6	2.5	4.9	0	0	0	0	2.5	0	0	0	0
REF. NO.	IC2001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
PLAY	4.9	5.0	2.6	2.5	2.3	2.4	2.5	2.5	0	2.5	2.7	2.6	4.9	0	0	0	2.5	2.5	0	2.8
REF. NO.	IC2001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
PLAY	2.6	4.9	1.3	2.8	4.0	0	0	0	0	0	0	4.9	0	0	0	0.2	4.9	4.9	0	3.8
REF. NO.	IC2001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
PLAY	4.9	0	4.9	4.9	4.9	0	4.9	0	0	0	4.9	0	0	0	0	4.9	4.9	0	0	0
REF. NO.	IC2001																			
MODE	81	82	83	84																
PLAY	0	2.4	2.4	4.9																
REF. NO.	IC2003										IC2004									
MODE	1	2	3								1	2	3	4	5	6	7	8		
PLAY	4.9	4.9	0								0.7	0.7	2.6	4.9	0	0	0	5.0		
REF. NO.	IC2006																			
MODE	1	2	3	4	5															
PLAY	4.9	4.9	0	5.0	5.0															
REF. NO.	IC2007																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PLAY	0	0	5.0	4.8	0	0	0	5.0	5.0	0.2	0	5.0	5.0	5.0						
REF. NO.	IC2010																			
MODE	1	2	3	4	5	6	7	8												
PLAY	2.5	2.5	2.5	0	2.5	2.5	2.6	4.9												
REF. NO.	IC2011																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PLAY	2.5	2.5	2.4	2.5	2.5	5.0	0	1.9	1.9	5.0	0	5.0	4.9	5.0						
REF. NO.	IC2012																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PLAY	4.9	2.5	2.5	5.0	2.3	0	0	2.5	2.5	2.5	2.5	2.5	2.5	5.0						
REF. NO.	IC2014										IC2015									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5					
PLAY	4.9	2.4	3.1	0	2.5	4.9	0.4	5.0			2.4	2.4	0	4.9	5.0					
REF. NO.	IC2301																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18		
PLAY	13.5	13.5	0.4	1.1	0	2.5	2.5	0.6	0.5	2.7	5.1	3.7	3.7	3.7	1.5	13.1	13.5	0.1		
REF. NO.	IC2302																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	1.6	0	1.7	1.4	2.1	2.0	2.1	2.1	2.1	2.0	0	0	5.1	3.7	2.8	2.6	2.6	0.6	0.4	0
REF. NO.	IC2302																			
MODE	21	22	23	24																
PLAY	0	0.6	2.5	10.8																
REF. NO.	IC2303										IC2304									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
PLAY	2.6	2.6	2.6	0	1.9	1.9	0.1	5.1			2.5	2.5	2.6	0	2.6	2.5	2.5	5.1		
REF. NO.	IC2305										IC2306									
MODE	1	2	3	4	5	6	7	8			1	2	3	4	5	6	7	8		
PLAY	2.5	2.6	2.6	0	2.6	2.6	2.5	5.1			2.6	2.6	2.6	0	2.6	2.6	2.6	5.1		
REF. NO.	IC2307																			
MODE	I	G	O																	
PLAY	19.8	0	12.0																	
REF. NO.	IC2901																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	13.0	3.0	3.1	3.2	18.3	3.0	3.1	3.1	17.6	0.8	0.7	0	1.5	2.6	0.5	0.8	0.5	0.8	0	0
REF. NO.	IC2901																			
MODE	21	22	23	24																
PLAY	2.5	2.4	—	2.7																
REF. NO.	IC2902																			
MODE	1	2	3	4	5	6	7	8												
PLAY	0.1	5.1	2.6	0	2.6	—	4.4	5.1												

SERVO TRs DC VOLTAGE CHART

REF. NO.	Q2001			Q2002			Q2003			Q2004			Q2901			Q2902		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	3.0	5.0	3.7	5.0	5.3	0	0	0	0.6	1.8	5.0	2.3	10.8	2.6	10.7	0	0.3	0.2
REF. NO.	Q2903			Q2904			Q2905			Q2906			Q2907			Q2908		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	0	10.8	0.3	19.8	11.0	19.4	3.1	3.0	2.5	5.3	3.0	5.3	19.8	5.4	19.6	3.8	3.0	3.4
REF. NO.	Q2909			Q2910			Q2911			Q2912								
MODE	E	C	B	E	C	B	E	C	B	E	C	B						
PLAY	6.0	3.0	5.8	19.2	6.0	19.5	0	0.1	0	13.1	19.8	14.2						
REF. NO.	QR2001			QR2002			QR2003			QR2005			QR2901			QR2902		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
PLAY	0	0	4.9	0	0	4.9	0	5.1	0	0	0.3	0	0	2.6	0	0	2.6	0
REF. NO.	QR2903			QR2904														
MODE	E	C	B	E	C	B												
PLAY	5.0	0	10.8	5.3	0.1	4.5												

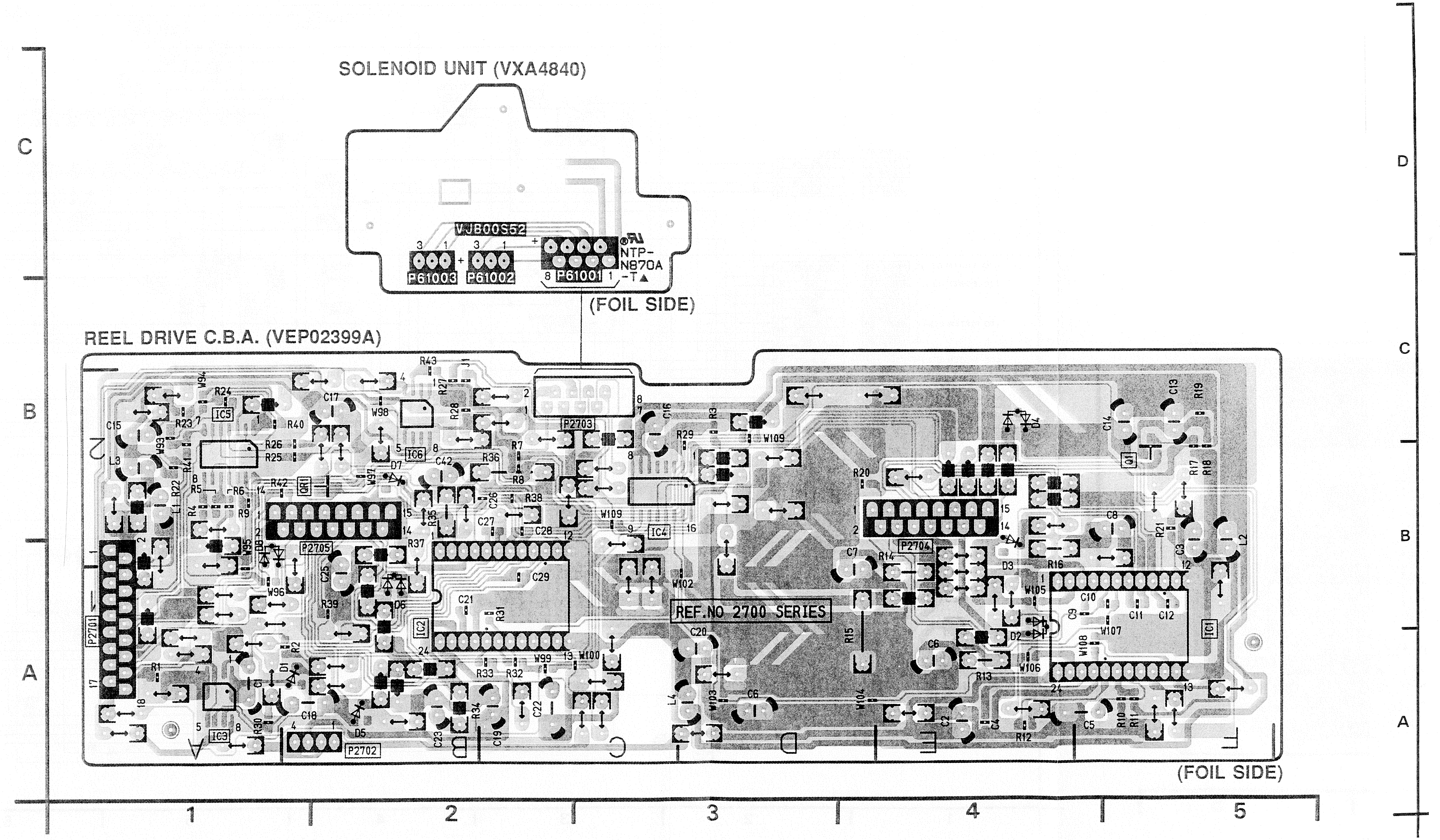
REEL DRIVE ICs DC VOLTAGE CHART

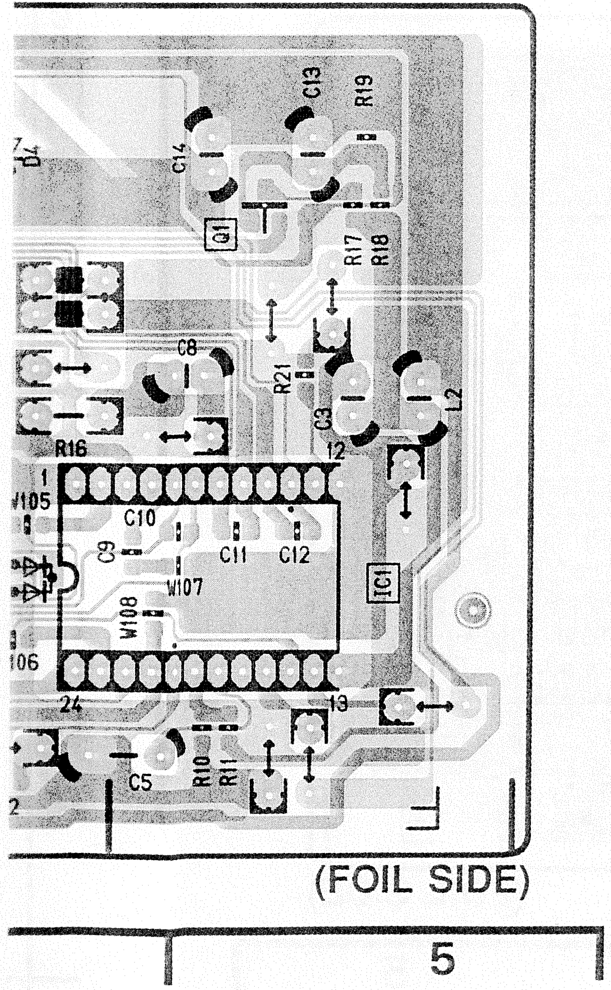
REF. NO.	IC2701																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	0.9	0.1	0.8	1.4	2.7	2.7	2.6	2.6	2.6	2.7	0	0	5.0	3.6	2.5	2.3	4.4	0.6	0.8	0.1
REF. NO.	IC2701																			
MODE	21	22	23	24																
PLAY	0	0.7	0.9	5.3																
REF. NO.	IC2702																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
PLAY	3.6	0.1	3.6	1.4	2.7	2.7	2.7	2.7	2.8	2.7	0	0	5.0	3.7	2.7	2.5	4.4	0.7	0.5	0.1
REF. NO.	IC2702																			
MODE	21	22	23	24																
PLAY	0	0.7	3.6	3.6																
REF. NO.	IC2703																			
MODE	1	2	3	4	5	6	7	8												
PLAY	3.9	0.1	0.1	0	0.1	0.1	3.2	5.1												
REF. NO.	IC2704																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
PLAY	2.7	2.5	0.5	0.5	0.5	0	0	0	0	5.1	0.1	2.5	3.3	2.5	2.7	5.1				
REF. NO.	IC2705																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
PLAY	5.0	5.0	5.1	2.3	2.3	2.3	2.2	3.1	2.5	2.0	2.5	0	5.1	0.1						
REF. NO.	IC2706																			
MODE	1	2	3	4	5	6	7	8												
PLAY	5.0	5.0	5.0	0	2.5	2.5	2.5	12.0												

REEL DRIVE TRs DC VOLTAGE CHART

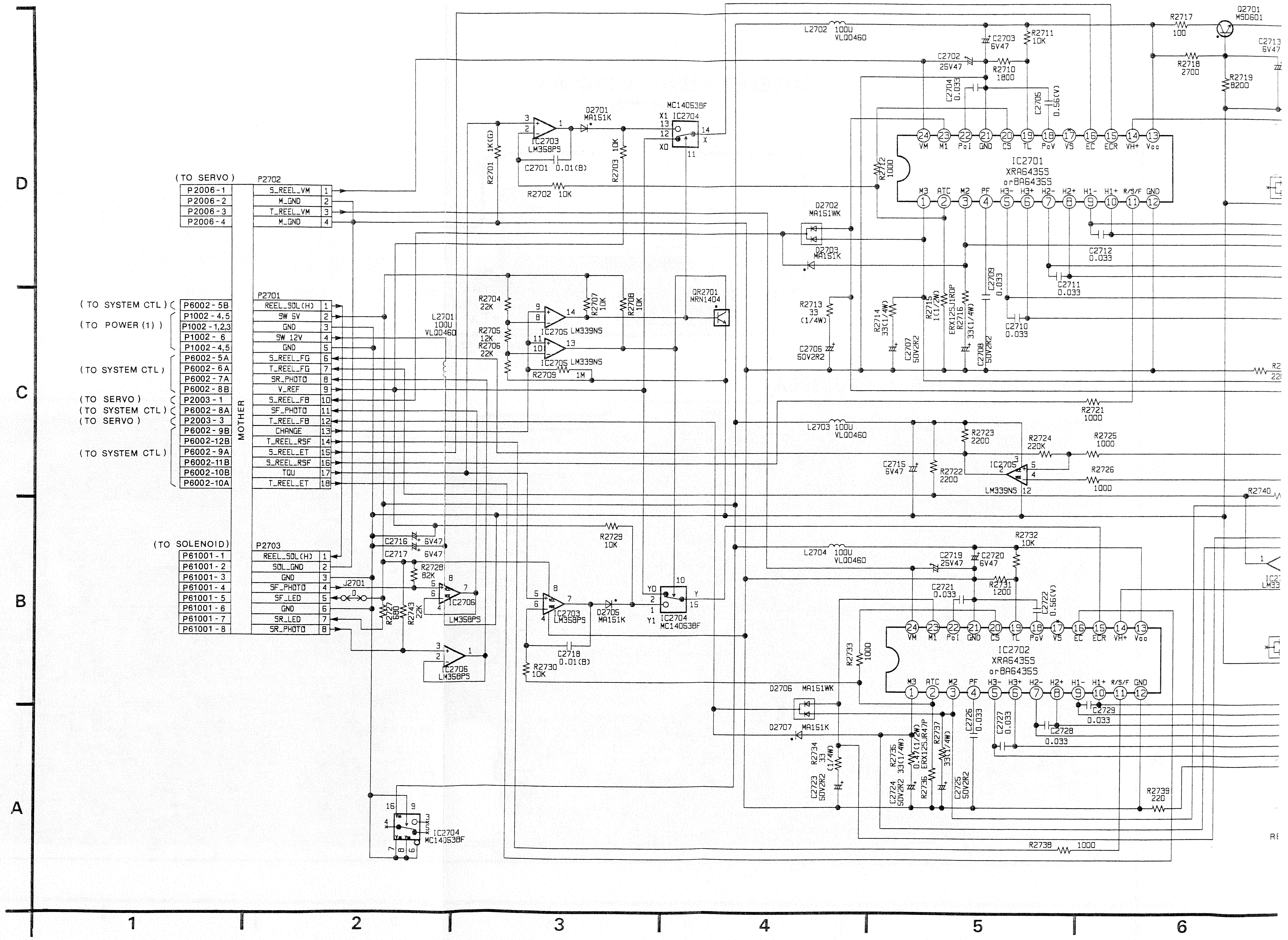
REF. NO.	Q2701																	
MODE	E	C	B															
PLAY	3.0	4.1	3.7															
REF. NO.	QR2701																	
MODE	E	C	B															
PLAY	0	5.1	0.1															

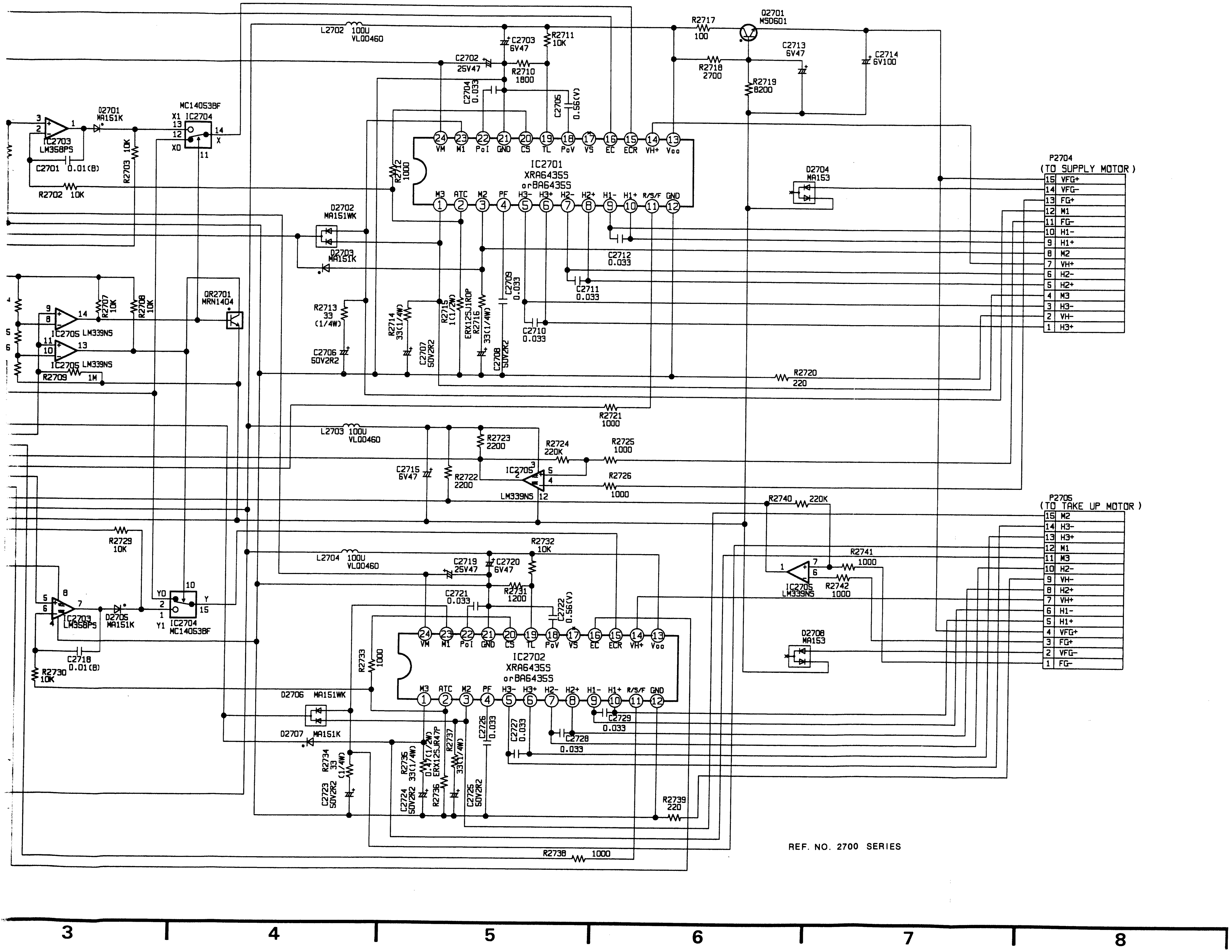
REEL DRIVE C.B.A. (VEP02399A) AND SOLENOID UNIT (VXA4840)


SOLENOID UNIT (VXA4840)
VJB00S52
P61003
P61002
P61001
NTP-N870A-T▲
(FOIL SIDE)
REEL DRIVE C.B.A. (VEP02399A)
REF.NO 2700 SERIES
P2701
P2702
P2703
P2704
P2705
IC1
IC2
IC3
IC4
IC5
IC6
Q1
QR1
D1
D2
D3
D4
D5
D6
D7
D8
L1
L2
L3
L4
(FOIL SIDE)
A
B
C
D
1
2
3
4
5


C13
R19
C14
D4
Q1
R17
R18
C8
R21
C3
L2
R16
12
W105
C10
C9
C11
C12
IC1
W107
W108
106
24
13
C5
R10
R11
(FOIL SIDE)
5

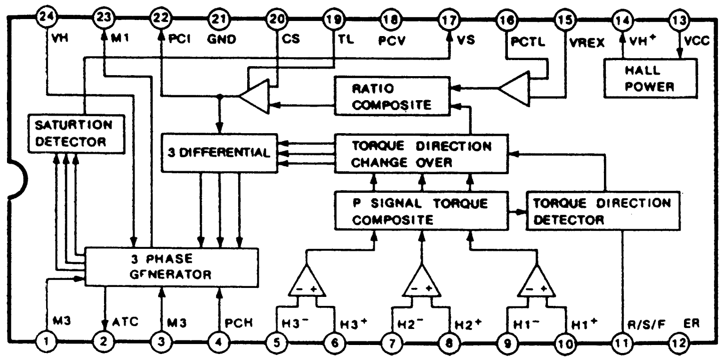
REEL DRIVE SCHEMATIC DIAGRAM


D
C
B
A
1
2
3
4
5
6
(TO SERVO)
P2702
P2006-1
P2006-2
P2006-3
P2006-4
S_REEL_VM
M_GND
T_REEL_VM
M_GND
(TO SYSTEM CTL)
(TO POWER (1))
(TO SYSTEM CTL)
(TO SERVO)
(TO SYSTEM CTL)
(TO SERVO)
(TO SYSTEM CTL)
P2701
P6002-5B
P1002-4,5
P1002-1,2,3
P1002-6
P1002-4,5
P6002-5A
P6002-6A
P6002-7A
P6002-8B
P2003-1
P6002-8A
P2003-3
P6002-9B
P6002-12B
P6002-9A
P6002-11B
P6002-10B
P6002-10A
REEL_SOL(H)
SW 5V
GND
SW 12V
GND
S_REEL_FG
T_REEL_FG
SR_PHOTO
V_REF
S_REEL_FB
SF_PHOTO
T_REEL_FB
CHANGE
T_REEL_RSF
S_REEL_RSF
S_REEL_ET
TQU
T_REEL_ET
MOTHER
(TO SOLENOID)
P2703
P61001-1
P61001-2
P61001-3
P61001-4
P61001-5
P61001-6
P61001-7
P61001-8
REEL_SOL(H)
SOL_GND
GND
SF_PHOTO
SF_LED
GND
SR_LED
SR_PHOTO
J2701
R2701 1K(G)
IC2703 LM358PS
C2701 0.01(B)
R2702 10K
D2701 MA151K
R2703 10K
MC14053BF
IC2704
X1 X0 X
R2704 22K
R2705 12K
R2706 22K
R2707 10K
R2708 10K
IC2705 LM339NS
R2709 1M
L2701 100U VL00460
QR2701 MRN1404
C2716 6V47
C2717 6V47
R2728 82K
R2727 680
R2743 22K
IC2706 LM358PS
R2729 10K
IC2703 LM358PS
D2705 MA151K
Y0 Y1 Y
IC2704 MC14053BF
C2718 0.01(B)
R2730 10K
IC2704 MC14053BF
L2702 100U VL00460
C2702 25V47
C2703 6V47
R2711 10K
R2710 1800
C2704 0.033
C2705 0.56(V)
R2712 1000
IC2701
XRA6435S
or BA6435S
VM M1 PoI GND CS TL PoV VS EC ECR VH+ Vcc
M3 ATC M2 PF H3- H3+ H2- H2+ H1- H1+ R/S/F GND
D2702 MA151WK
D2703 MA151K
R2713 33 (1/4W)
R2714 33(1/4W)
R2715 1(1/2W)
ERX12SJ1R0P
R2716 33(1/4W)
C2706 50V2R2
C2707 50V2R2
C2708 50V2R2
C2709 0.033
C2710 0.033
C2711 0.033
C2712 0.033
R2717 100
Q2701 MSD601
R2718 2700
R2719 8200
C2713 6V47
R2721 1000
L2703 100U VL00460
R2723 2200
R2724 220K
R2725 1000
C2715 6V47
R2722 2200
IC2705 LM339NS
R2726 1000
R2740
R2732 10K
L2704 100U VL00460
C2719 25V47
C2720 6V47
R2731 1200
C2721 0.033
C2722 0.56(V)
R2733 1000
IC2702
XRA6435S
or BA6435S
D2706 MA151WK
D2707 MA151K
R2734 33 (1/4W)
R2735 33(1/4W)
R2736 ERX12SJR47P
R2737 33(1/4W)
C2723 50V2R2
C2724 50V2R2
C2725 50V2R2
C2726 0.033
C2727 0.033
C2728 0.033
C2729 0.033
R2739 220
R2738 1000

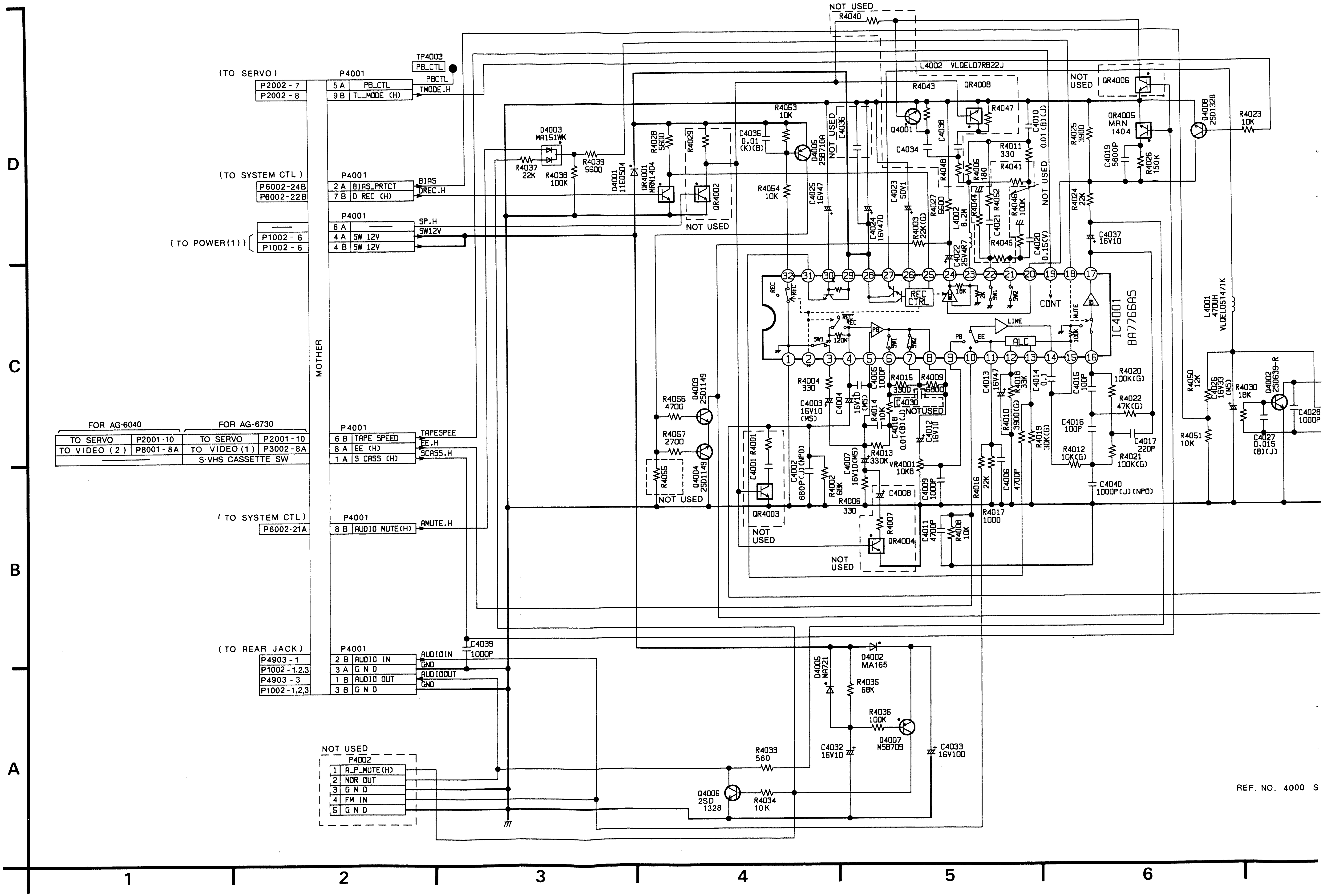

IC2701
XRA6435S
or BA6435S
IC2702
XRA6435S
or BA6435S
P2704
(TO SUPPLY MOTOR)
15 VFG+
14 VFG-
13 FG+
12 M1
11 FG-
10 H1-
9 H1+
8 M2
7 VH+
6 H2-
5 H2+
4 M3
3 H3-
2 VH-
1 H3+
P2705
(TO TAKE UP MOTOR)
15 M2
14 H3-
13 H3+
12 M1
11 M3
10 H2-
9 VH-
8 H2+
7 VH+
6 H1-
5 H1+
4 VFG+
3 FG+
2 VFG-
1 FG-
Q2701
MSD601
R2717
100
R2718
2700
R2719
8200
C2713
6V47
C2714
6V100
L2702 100U
VLQ0460
L2703 100U
VLQ0460
L2704 100U
VLQ0460
IC2703
LM358PS
IC2704
MC14053BF
IC2705
LM339NS
QR2701
MRN1404
D2701
MA151K
D2702
MA151WK
D2703
MA151K
D2704
MA153
D2705
MA151K
D2706
MA151WK
D2707
MA151K
D2708
MA153
R2720
220
R2721
1000
R2738
1000
R2739
220
R2740
220K
R2741
1000
R2742
1000
3
4
5
6
7
8

REF. NO. 2700 SERIES

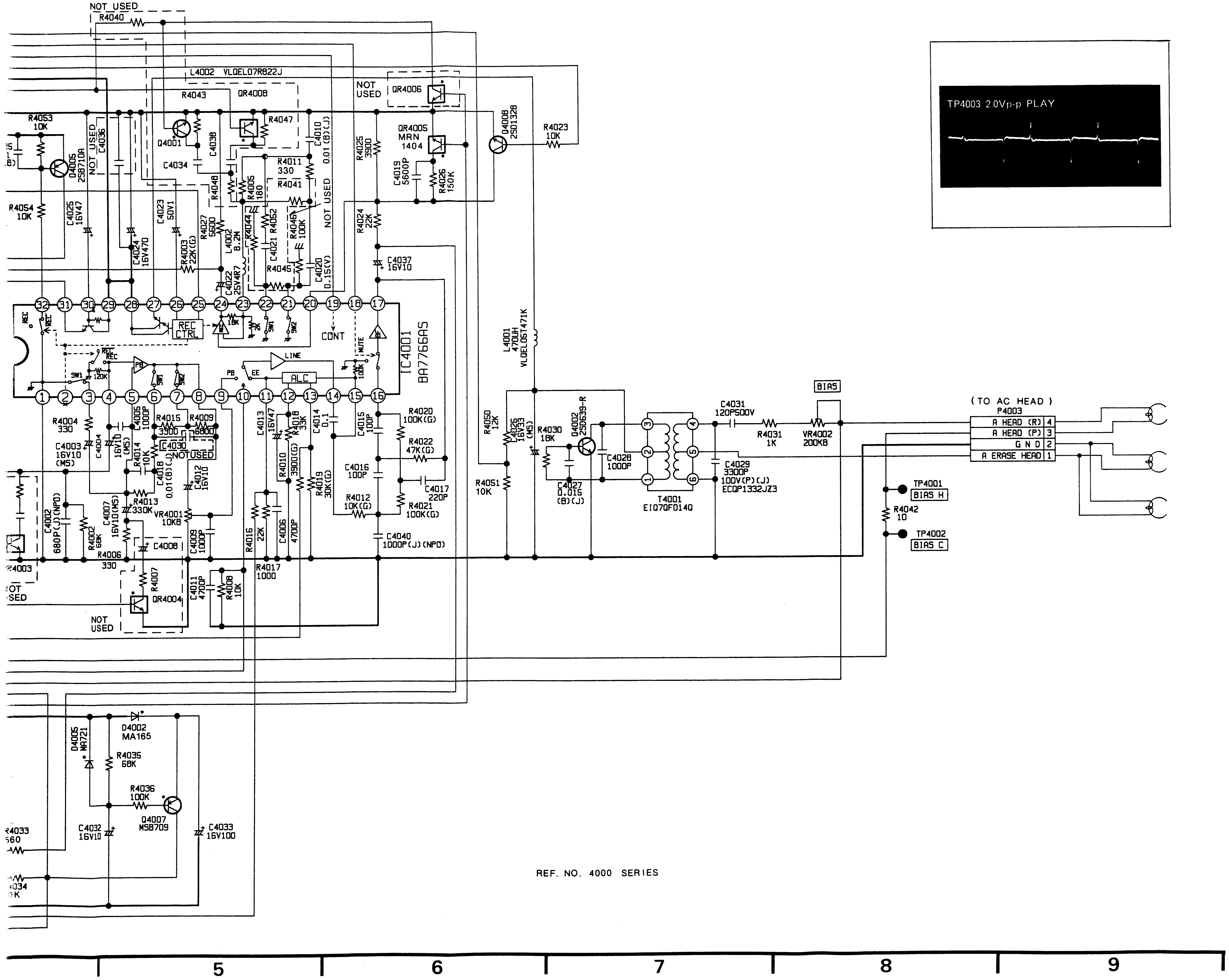
IC2701,IC2702 XRA6435S


VH
M1
PCI
GND
CS
TL
PCV
VS
PCTL
VREX
VH+
VCC
HALL POWER
RATIO COMPOSITE
SATURTION DETECTOR
3 DIFFERENTIAL
TORQUE DIRECTION CHANGE OVER
P SIGNAL TORQUE COMPOSITE
TORQUE DIRECTION DETECTOR
3 PHASE GENERATOR
M3
ATC
M3
PCH
H3-
H3+
H2-
H2+
H1-
H1+
R/S/F
ER

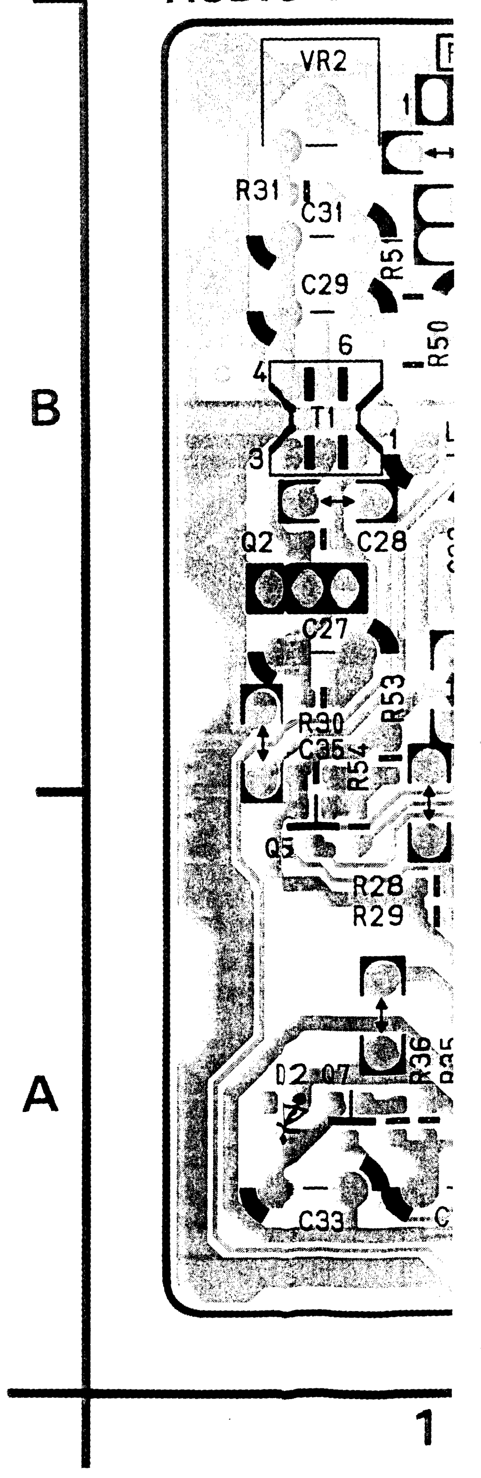
AUDIO SCHEMATIC DIAGRAM


(TO SERVO)
P2002-7
P2002-8
P4001
5A PB_CTL
9B TL_MODE (H)
TP4003
PB_CTL
PBCTL
TMODE.H
(TO SYSTEM CTL)
P6002-24B
P6002-22B
2A BIAS_PRTCT
7B D REC (H)
BIAS
DREC.H
(TO POWER(1))
P1002-6
6A
4A SW 12V
4B SW 12V
SP.H
SW12V
FOR AG-6040
FOR AG-6730
TO SERVO P2001-10
TO VIDEO (2) P8001-8A
TO SERVO P2001-10
TO VIDEO (1) P3002-8A
S-VHS CASSETTE SW
6B TAPE SPEED
8A EE (H)
1A S CASS (H)
TAPESPEE
EE.H
SCASS.H
MOTHER
(TO SYSTEM CTL)
P6002-21A
8B AUDIO MUTE(H)
AMUTE.H
(TO REAR JACK)
P4903-1
P1002-1,2,3
P4903-3
P1002-1,2,3
2B AUDIO IN
3A GND
1B AUDIO OUT
3B GND
AUDIOIN
GND
AUDIOOUT
GND
C4039 1000P
NOT USED
P4002
1 A_P_MUTE(H)
2 NOR OUT
3 GND
4 FM IN
5 GND
D4003 MA151WK
R4037 22K
R4038 100K
R4039 5600
D4001 11E0504
QR4001 MRN1404
R4028 5600
R4029
QR4002
NOT USED
R4053 10K
C4035 0.01 (K)(B)
Q4005 2SB710A
R4054 10K
C4025 16V47
NOT USED C4036
C4024 16V470
C4023 50V1
R4003 22K(G)
NOT USED
R4040
L4002 VLQEL07R822J
R4043
QR4008
Q4001
C4034
C4038
R4047
C4010 0.01(B)(J)
R4011 330
R4041
R4048
R4005 180
R4027 5600
L4002 8.2M
R4044
R4052
R4046 100K
C4021
R4045
C4022 25V4R7
C4020 0.15(V)
NOT USED
NOT USED
QR4006
QR4005 MRN 1404
C4019 5600P
R4026 150K
R4025 3900
R4024 22K
C4037 16V10
Q4008 2SD1328
R4023 10K
IC4001 BA7766AS
REC
REC CTRL
CONT
SW1
SW2
MUTE
LINE
PB
EE
ALC
18K
120K
10K
R4004 330
C4003 16V10 (MS)
C4004
C4005 1000P
R4015 3300
R4009 6800
C4030 NOT USED
R4014 10K
C4018 0.01(B)(J)
C4012 16V10
C4007 16V10(MS)
R4013 330K
VR4001 10KB
R4006 330
C4008
C4009 1000P
C4011 4700P
R4008 10K
R4007
QR4004
NOT USED
C4013 16V47
R4018 33K
R4010 3900(G)
C4014 0.1
R4019 30K(G)
C4015 100P
R4020 100K(G)
R4022 47K(G)
C4016 100P
C4017 220P
R4012 10K(G)
R4021 100K(G)
C4040 1000P(J)(NPO)
R4016 22K
C4006 4700P
R4017 1000
R4056 4700
Q4003 2SD1149
R4057 2700
Q4004 2SD1149
R4055
NOT USED
C4001 R4001
QR4003
NOT USED
C4002 680P(J)(NPO)
R4002 68K
L4001 470UH VLQEL0S471K
R4050 12K
C4026 16V33 (MS)
R4030 18K
Q4002 2SD639-R
R4051 10K
C4027 0.015 (B)(J)
C4028 1000P
D4005 MA721
D4002 MA165
R4035 68K
R4036 100K
Q4007 MSB709
C4032 16V10
C4033 16V100
R4033 560
Q4006 2SD 1328
R4034 10K
REF. NO. 4000 S
D
C
B
A
1
2
3
4
5
6

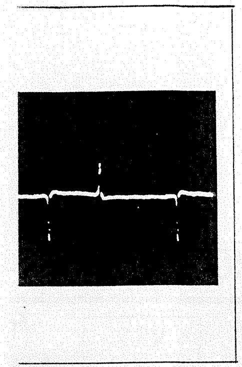
AUDIO C.B.A. (VEP

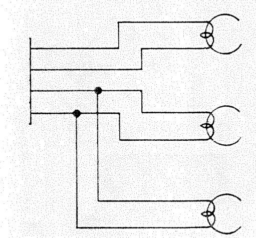

TP4003 2.0Vp-p PLAY
NOT USED
R4040
L4002 VLQEL07R822J
R4043
QR4008
QR4006
QR4005 MRN 1404
Q4008 2SD1328
R4023 10K
R4053 10K
Q4006 2SB710A
NOT USED C4036
Q4001
C4034
C4038
R4047
C4010 0.01(B)(J)
R4011 330
R4041
R4005 180
R4025 3900
C4019 5600P
R4026 150K
R4054 10K
C4025 16V47
C4023 50V1
C4024 16V470
R4003 22K(G)
R4027 5600
R4048
L4002 8.2M
R4044
R4052
C4021
R4046 100K
NOT USED
R4024 22K
C4037 16V10
R4045
C4020 0.15(V)
C4022 25V4R7
REC CTRL
CONT
IC4001 BA7766AS
ALC
LINE
PB
EE
MUTE
SW1
SW2
REC
L4001 470UH VLQEL05T471K
R4004 330
C4003 16V10 (MS)
C4004
C4005 1000P
R4015 3300
R4009 6800
C4030 NOT USED
R4014 10K
C4018 0.01(B)(J)
C4012 16V10
R4013 330K
VR4001 10KB
C4007 16V10(MS)
C4002 680P(J)(NPO)
R4002 68K
R4006 330
C4008
C4009 100P
C4013 16V47
R4018 33K
R4010 3900(G)
R4019 30K(G)
C4014 0.1
C4015 100P
C4016 100P
R4012 10K(G)
R4020 100K(G)
R4022 47K(G)
C4017 220P
R4021 100K(G)
C4040 1000P(J)(NPO)
R4016 22K
C4006 4700P
R4017 1000
C4011 4700P
R4008 10K
R4007
QR4004
R4050 12K
R4051 10K
C4026 16V33 (MS)
R4030 18K
Q4002 2SD639-R
C4027 0.015 (B)(J)
C4028 1000P
T4001 EI070F014Q
C4031 120P500V
R4031 1K
BIAS
VR4002 200KB
C4029 3300P 100V(P)(J) ECQP1332JZ3
(TO AC HEAD)
P4003
A HEAD (R) 4
A HEAD (P) 3
G N D 2
A ERASE HEAD 1
TP4001 BIAS H
R4042 10
TP4002 BIAS C
D4002 MA165
D4005 MA721
R4035 68K
R4036 100K
Q4007 MSB709
C4032 16V10
C4033 16V100
R4033 560
R4034
REF. NO. 4000 SERIES
5
6
7
8
9

AUDIO C.B.A.

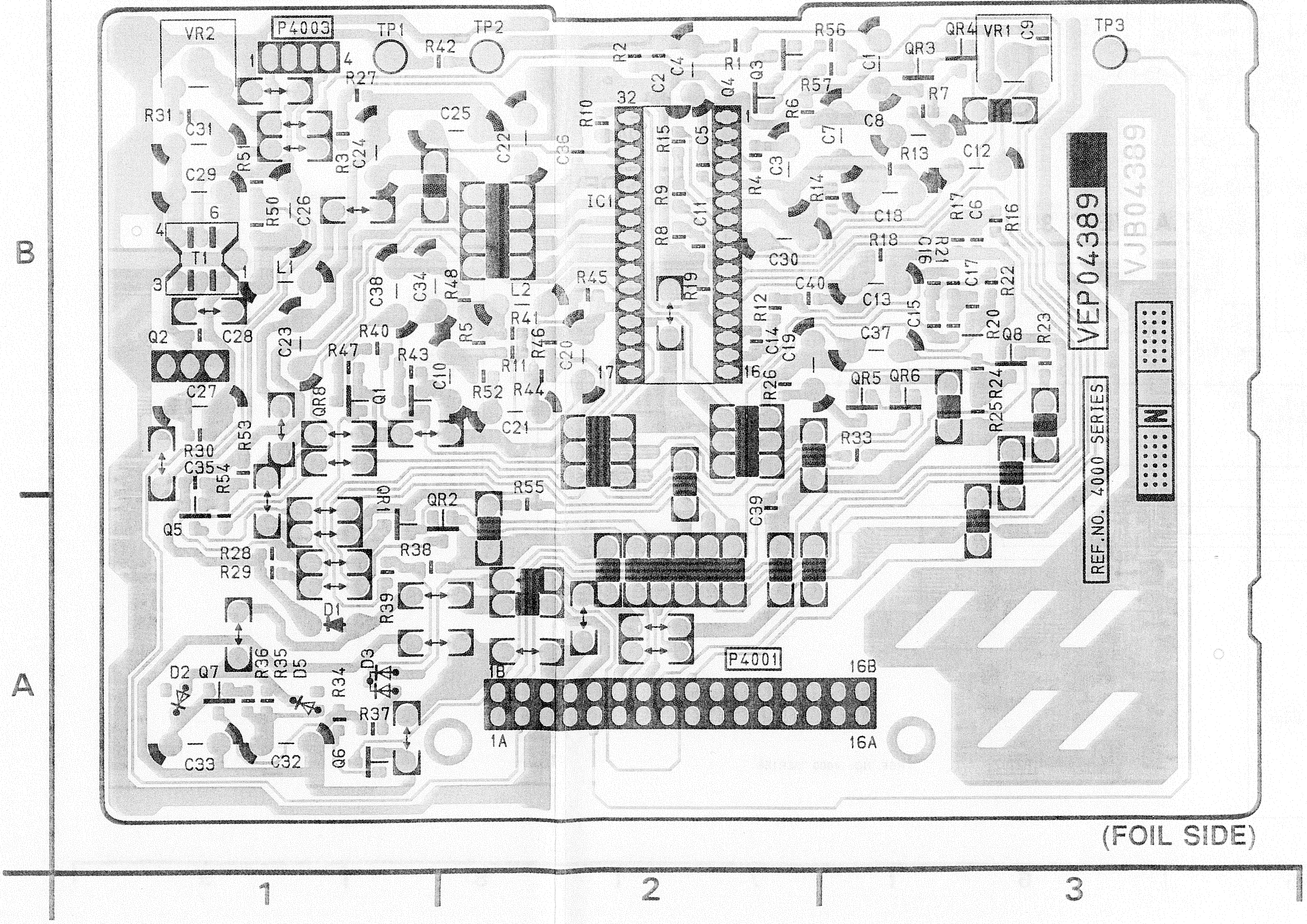

VR2
R31
C31
C29
R51
R50
T1
Q2
C28
C27
R30
C35
R53
R54
Q5
R28
R29
Q2
R36
C33
B
A
1

AUDIO C.B.A. (VEP04389C)



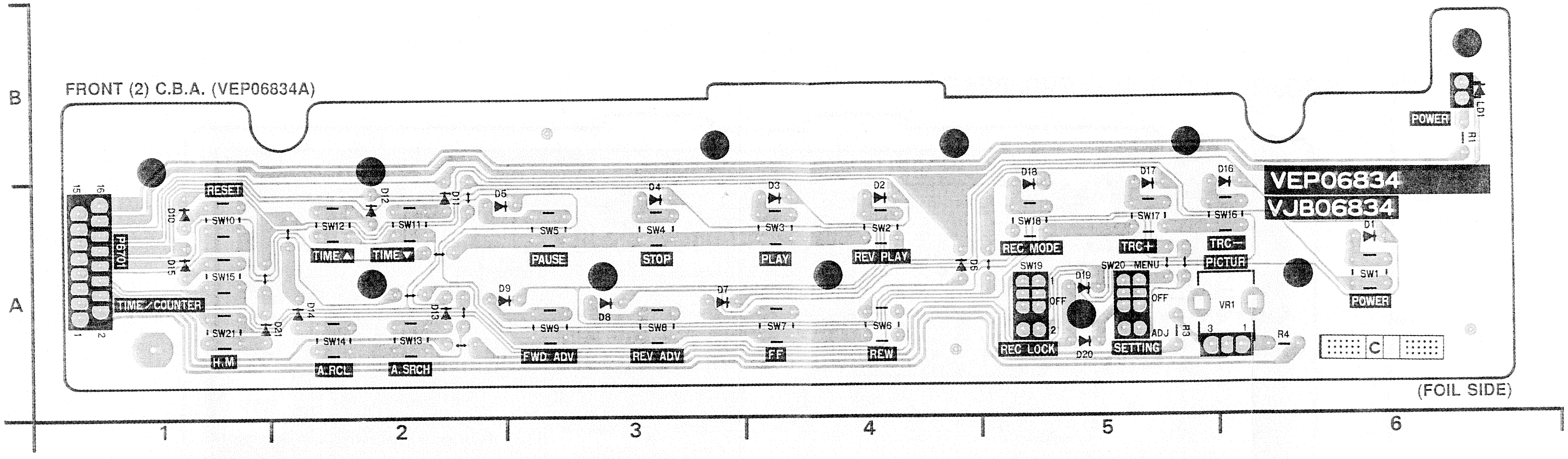


AUDIO C.B.A. (VEP04389C)

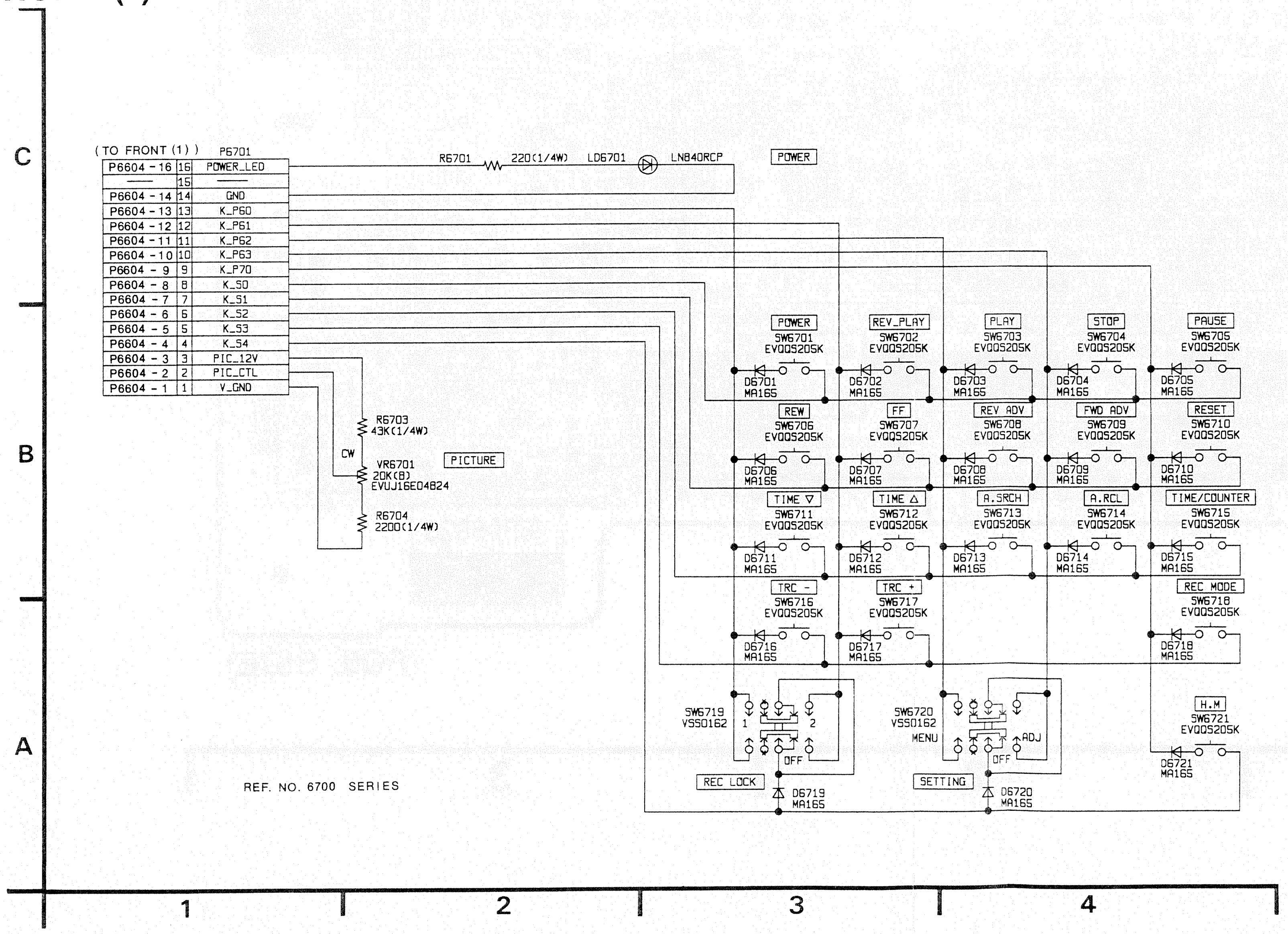

B
A
1
2
3
VR2
P4003
1
4
TP1
R42
TP2
R2
C4
R1
Q3
R56
C1
QR3
QR4
VR1
C9
TP3
R27
C2
Q4
R57
R7
R31
C31
R51
R3
C24
C25
C22
C36
R10
32
R15
C5
R6
C7
C8
C12
R13
C29
C26
R50
C3
R4
R14
IC1
R9
C11
R8
6
4
T1
3
1
L1
C38
C34
R48
L2
R45
C30
C18
R18
R17
C6
R16
Q16
R21
C40
C17
R22
C13
R19
R12
C15
Q2
C28
R40
R5
R41
R46
C14
C19
C37
R20
Q8
R23
C23
R47
R43
C20
R11
C10
R52
R44
17
16
R26
QR5
QR6
R24
R25
Q1
QR8
C27
C21
R33
R53
R30
C35
R54
QR1
QR2
R55
C39
Q5
R38
R28
R29
D1
R39
D2
Q7
R36
R35
D5
R34
D3
R37
1B
P4001
16B
1A
16A
C33
C32
Q6
VEP04389
VJB04389
REF. NO. 4000 SERIES
N

(FOIL SIDE)

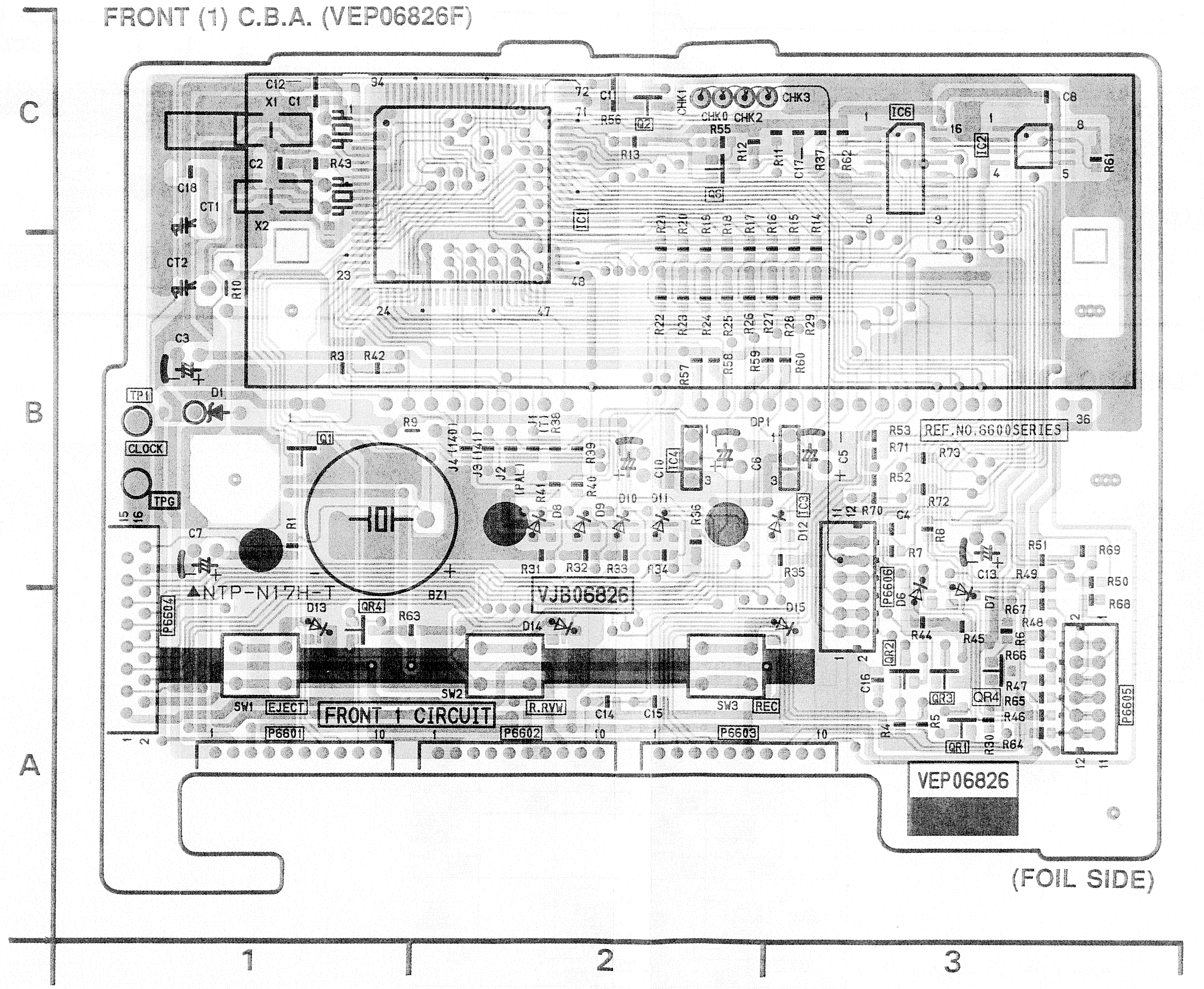
FRONT (2) C.B.A. (VEP06834A)


FRONT (2) C.B.A. (VEP06834A)
VEP06834
VJB06834
P6701
RESET
SW10
SW12
SW11
TIME▲
TIME▼
SW15
TIME/COUNTER
SW21
H.M
SW14
SW13
A.RCL
A.SRCH
SW5
PAUSE
SW4
STOP
SW3
PLAY
SW2
REV PLAY
SW9
FWD ADV
SW8
REV ADV
SW7
FF
SW6
REW
SW18
REC MODE
SW17
TRC+
SW16
TRC−
SW19
REC LOCK
SW20
MENU
OFF
ADJ
SETTING
PICTUR
VR1
SW1
POWER
LD1
R1
R3
R4
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
D15
D16
D17
D18
D19
D20
D21
(FOIL SIDE)
A
B
1
2
3
4
5
6

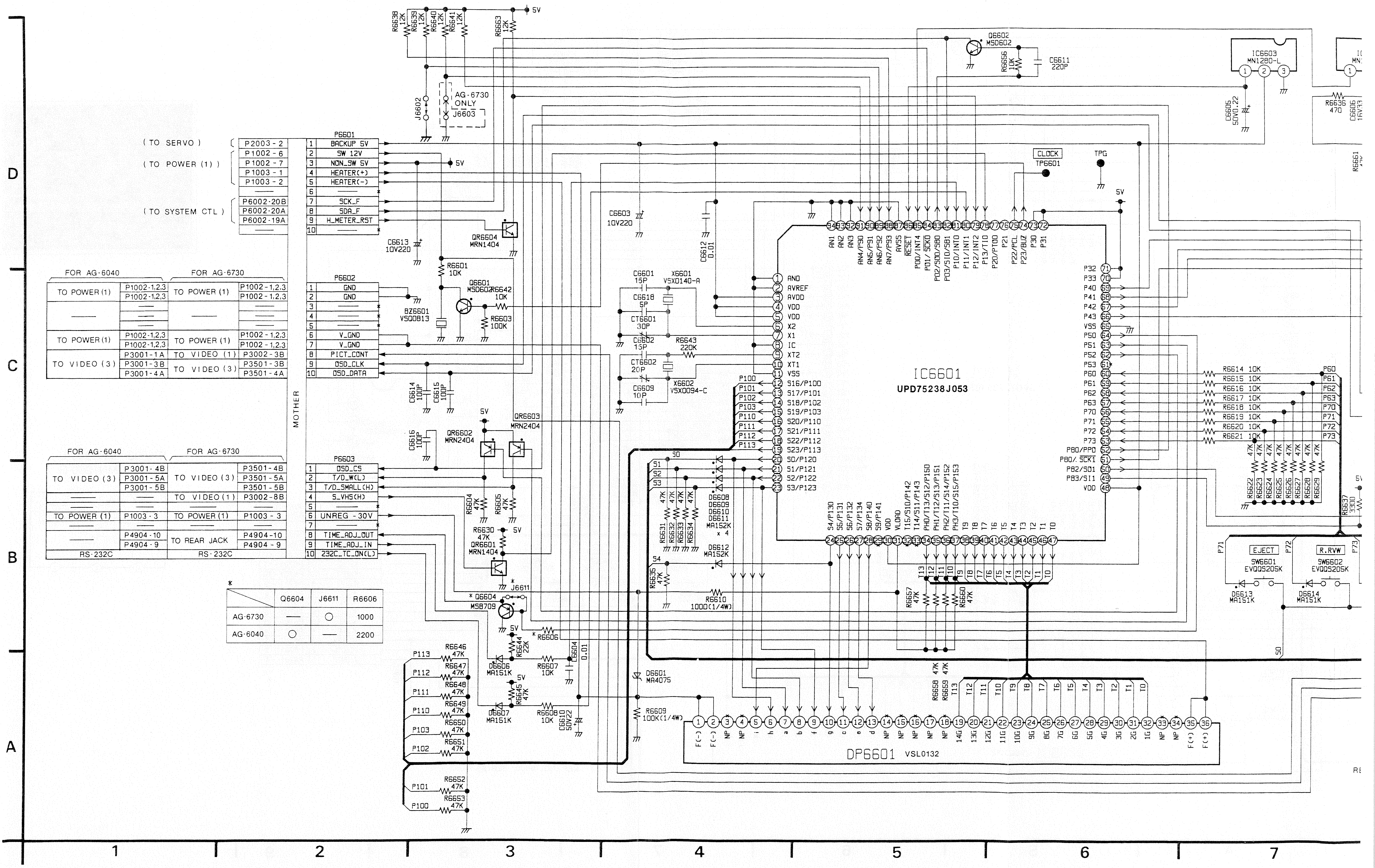
FRONT (2) SCHEMATIC DIAGRAM


(TO FRONT (1))
P6701
P6604 - 16 16 POWER_LED
15
P6604 - 14 14 GND
P6604 - 13 13 K_P60
P6604 - 12 12 K_P61
P6604 - 11 11 K_P62
P6604 - 10 10 K_P63
P6604 - 9 9 K_P70
P6604 - 8 8 K_S0
P6604 - 7 7 K_S1
P6604 - 6 6 K_S2
P6604 - 5 5 K_S3
P6604 - 4 4 K_S4
P6604 - 3 3 PIC_12V
P6604 - 2 2 PIC_CTL
P6604 - 1 1 V_GND
R6701 220(1/4W) LD6701 LN840RCP
POWER
R6703 43K(1/4W)
CW
VR6701 20K(B) EVUJ16E04824
PICTURE
R6704 2200(1/4W)
POWER SW6701 EVQQS205K D6701 MA165
REV_PLAY SW6702 EVQQS205K D6702 MA165
PLAY SW6703 EVQQS205K D6703 MA165
STOP SW6704 EVQQS205K D6704 MA165
PAUSE SW6705 EVQQS205K D6705 MA165
REW SW6706 EVQQS205K D6706 MA165
FF SW6707 EVQQS205K D6707 MA165
REV ADV SW6708 EVQQS205K D6708 MA165
FWD ADV SW6709 EVQQS205K D6709 MA165
RESET SW6710 EVQQS205K D6710 MA165
TIME ▽ SW6711 EVQQS205K D6711 MA165
TIME △ SW6712 EVQQS205K D6712 MA165
A.SRCH SW6713 EVQQS205K D6713 MA165
A.RCL SW6714 EVQQS205K D6714 MA165
TIME/COUNTER SW6715 EVQQS205K D6715 MA165
TRC − SW6716 EVQQS205K D6716 MA165
TRC + SW6717 EVQQS205K D6717 MA165
REC MODE SW6718 EVQQS205K D6718 MA165
SW6719 VSS0162 1 2 OFF
REC LOCK D6719 MA165
SW6720 VSS0162 MENU ADJ OFF
SETTING D6720 MA165
H.M SW6721 EVQQS205K D6721 MA165
REF. NO. 6700 SERIES
A
B
C
1
2
3
4

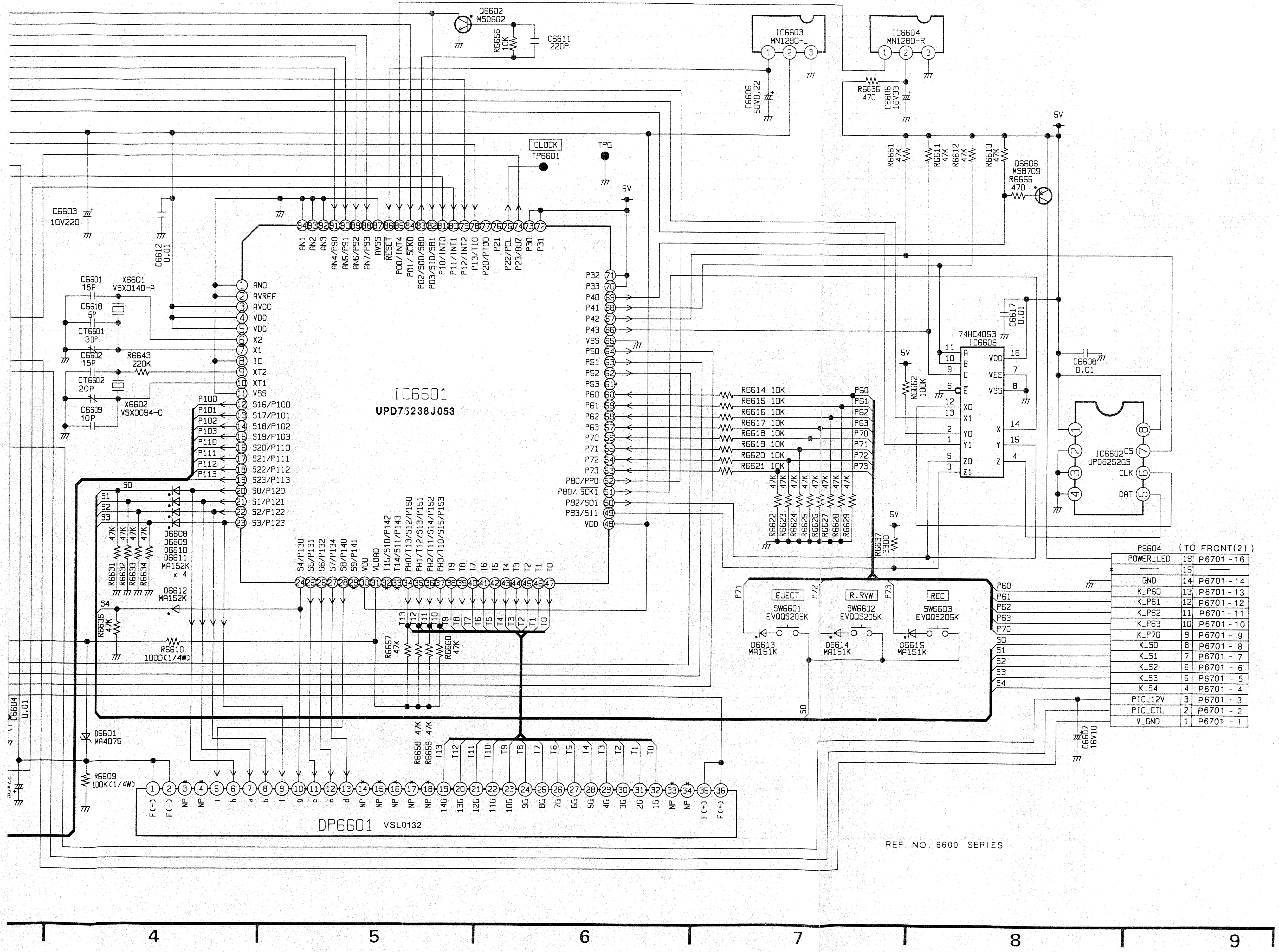
FRONT (1) C.B.A. (VEP06826F)


FRONT (1) C.B.A. (VEP06826F)
C
B
A
1
2
3
IC1
IC2
IC3
IC4
IC6
X1
X2
CHK0
CHK1
CHK2
CHK3
TP1
CLOCK
TPG
D1
Q1
DP1
BZ1
NTP-N17H-T
VJB06826
SW1
EJECT
SW2
FRONT 1 CIRCUIT
R.RVW
SW3
REC
P6601
P6602
P6603
P6604
P6605
P6606
QR1
QR2
QR3
QR4
REF.NO.6600SERIES
VEP06826
(FOIL SIDE)

FRONT (1) SCHEMATIC DIAGRAM

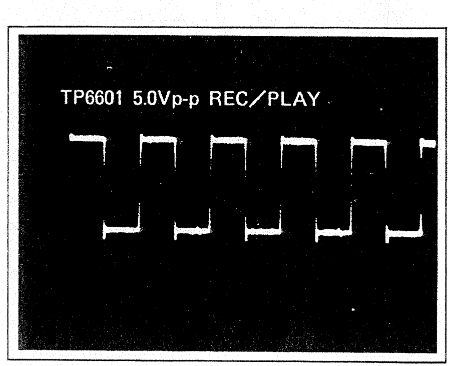

IC6601
UPD75238J053
IC6603
MN1280-L
DP6601 VSL0132
P6601
P6602
P6603
MOTHER
(TO SERVO)
(TO POWER (1))
(TO SYSTEM CTL)
P2003-2
P1002-6
P1002-7
P1003-1
P1003-2
P6002-20B
P6002-20A
P6002-19A
BACKUP 5V
SW 12V
NON_SW 5V
HEATER(+)
HEATER(-)
SCK_F
SDA_F
H_METER_RST
GND
V_GND
PICT_CONT
OSD_CLK
OSD_DATA
OSD_CS
T/D_W(L)
T/D_SMALL(H)
S_VHS(H)
UNREG -30V
TIME_ADJ_OUT
TIME_ADJ_IN
232C_TC_ON(L)
FOR AG-6040
FOR AG-6730
TO POWER (1)
TO VIDEO (3)
TO VIDEO (1)
TO REAR JACK
RS-232C
P1002-1,2,3
P3001-1A
P3001-3B
P3001-4A
P3002-3B
P3501-3B
P3501-4A
P3001-4B
P3001-5A
P3001-5B
P3501-4B
P3501-5A
P3501-5B
P3002-8B
P1003-3
P4904-10
P4904-9
AG-6730 ONLY
J6602
J6603
J6611
Q6601 MSD602
Q6602 MSD602
Q6604 MSB709
QR6601 MRN1404
QR6602 MRN2404
QR6603 MRN2404
QR6604 MRN1404
BZ6601 VSQ0813
X6601 VSX0140-A
X6602 VSX0094-C
CLOCK TP6601
TPG
5V
EJECT SW6601 EVQQS205K
R.RVW SW6602 EVQQS205K
D6601 MA4075
D6606 MA151K
D6607 MA151K
D6608 D6609 D6610 D6611 MA152K × 4
D6612 MA152K
D6613 MA151K
D6614 MA151K
R6601 10K
R6603 100K
R6606
R6607 10K
R6608 10K
R6609 100K(1/4W)
R6610 1000(1/4W)
R6630 47K
R6635 47K
R6636 470
R6637 3300
R6638 12K
R6639 12K
R6640 12K
R6641 12K
R6642 10K
R6643 220K
R6644 22K
R6645 47K
R6646 47K
R6647 47K
R6648 47K
R6649 47K
R6650 47K
R6651 47K
R6652 47K
R6653 47K
R6656 10K
R6657 47K
R6658 47K
R6659 47K
R6660 47K
R6663 12K
R6614 10K
R6615 10K
R6616 10K
R6617 10K
R6618 10K
R6619 10K
R6620 10K
R6621 10K
C6601 15P
C6602 15P
C6603 10V220
C6604 0.01
C6605 50V0.22
C6609 10P
C6610 50V22
C6611 220P
C6612 0.01
C6613 10V220
C6614 100P
C6615 100P
C6616 100P
C6618 5P
CT6601 30P
CT6602 20P
AN0 AVREF AVDD VDD VDD X2 X1 IC XT2 XT1 VSS
S16/P100 S17/P101 S18/P102 S19/P103 S20/P110 S21/P111 S22/P112 S23/P113
S0/P120 S1/P121 S2/P122 S3/P123
P32 P33 P40 P41 P42 P43 VSS P50 P51 P52 P53 P60 P61 P62 P63 P70 P71 P72 P73
P80/PP0 P80/SCK1 P82/SO1 P83/SI1 VDD
AN1 AN2 AN3 AN4/P90 AN5/P91 AN6/P92 AN7/P93 AVSS RESET P00/INT4 P01/SCK0 P02/SO0/SB0 P03/SI0/SB1 P10/INT0 P11/INT1 P12/INT2 P13/TI0 P20/PTO0 P21 P22/PCL P23/BUZ P30 P31
S4/P130 S5/P131 S6/P132 S7/P134 S8/P140 S9/P141 VDD VLOAD T15/S10/P142 T14/S11/P143 PH0/T13/S12/P150 PH1/T12/S13/P151 PH2/T11/S14/P152 PH3/T10/S15/P153 T9 T8 T7 T6 T5 T4 T3 T2 T1 T0
F(-) F(-) NP NP i h a b f g c e d 14G 13G 12G 11G 10G 9G 8G 7G 6G 5G 4G 3G 2G 1G NP NP F(+) F(+)
P100 P101 P102 P103 P110 P111 P112 P113
A B C D
1 2 3 4 5 6 7

*	Q6604	J6611	R6606
AG-6730	—	○	1000
AG-6040	○	—	2200

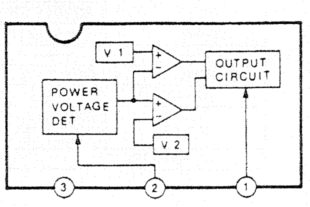

IC6601
UPD75238J053
Q6602
MSD602
R6656
10K
C6611
220P
IC6603
MN1280-L
IC6604
MN1280-R
C6605
50V0.22
R6636
470
C6606
16V33
5V
R6661
47K
R6611
47K
R6612
47K
R6613
47K
Q6606
MSB709
R6655
470
CLOCK
TP6601
TPG
C6603
10V220
C6612
0.01
C6601
15P
X6601
VSX0140-A
C6618
5P
CT6601
30P
C6602
15P
R6643
220K
CT6602
20P
X6602
VSX0094-C
C6609
10P
C6617
0.01
74HC4053
IC6605
R6662
100K
C6608
0.01
IC6602
UPD6252GS
CS
CLK
DAT
R6614 10K
R6615 10K
R6616 10K
R6617 10K
R6618 10K
R6619 10K
R6620 10K
R6621 10K
R6622
R6623
R6624
R6625
R6626
R6627
R6628
R6629
R6637
330
EJECT
SW6601
EVQQS205K
R.RVW
SW6602
EVQQS205K
REC
SW6603
EVQQS205K
D6613
MA151K
D6614
MA151K
D6615
MA151K
D6608
D6609
D6610
D6611
MA152K
x 4
D6612
MA152K
R6631
R6632
R6633
R6634
R6635
47K
R6610
1000(1/4W)
R6657
47K
R6660
47K
R6658
47K
R6659
47K
C6604
0.01
D6601
MA4075
R6609
100K(1/4W)
DP6601
VSL0132
C6607
16V10
P6604
(TO FRONT(2))
4
5
6
7
8
9

P6604		(TO FRONT(2))
POWER_LED	16	P6701 - 16
——	15	——
GND	14	P6701 - 14
K_P60	13	P6701 - 13
K_P61	12	P6701 - 12
K_P62	11	P6701 - 11
K_P63	10	P6701 - 10
K_P70	9	P6701 - 9
K_S0	8	P6701 - 8
K_S1	7	P6701 - 7
K_S2	6	P6701 - 6
K_S3	5	P6701 - 5
K_S4	4	P6701 - 4
PIC_12V	3	P6701 - 3
PIC_CTL	2	P6701 - 2
V_GND	1	P6701 - 1

REF. NO. 6600 SERIES

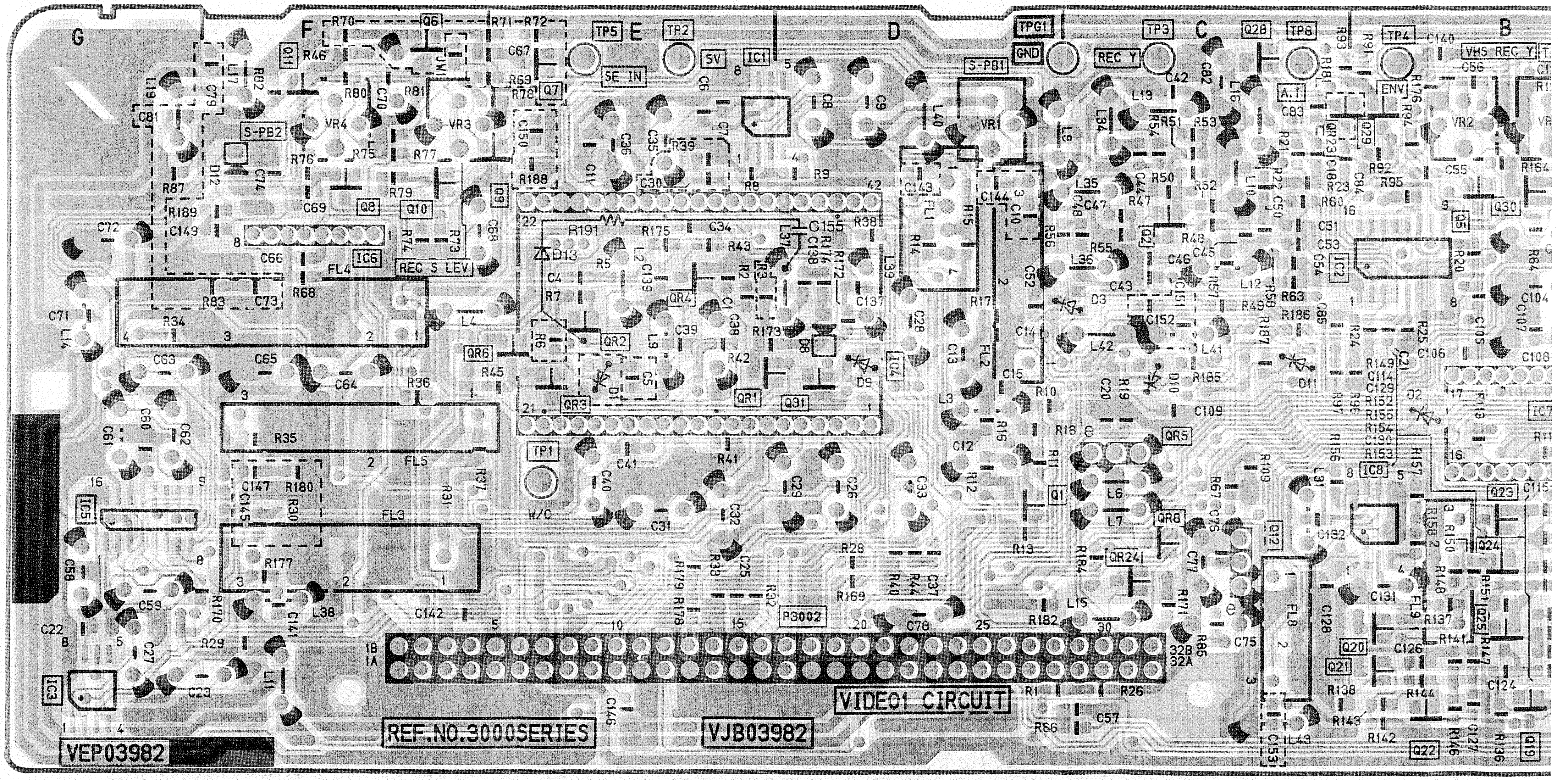

TP6601 5.0Vp-p REC/PLAY

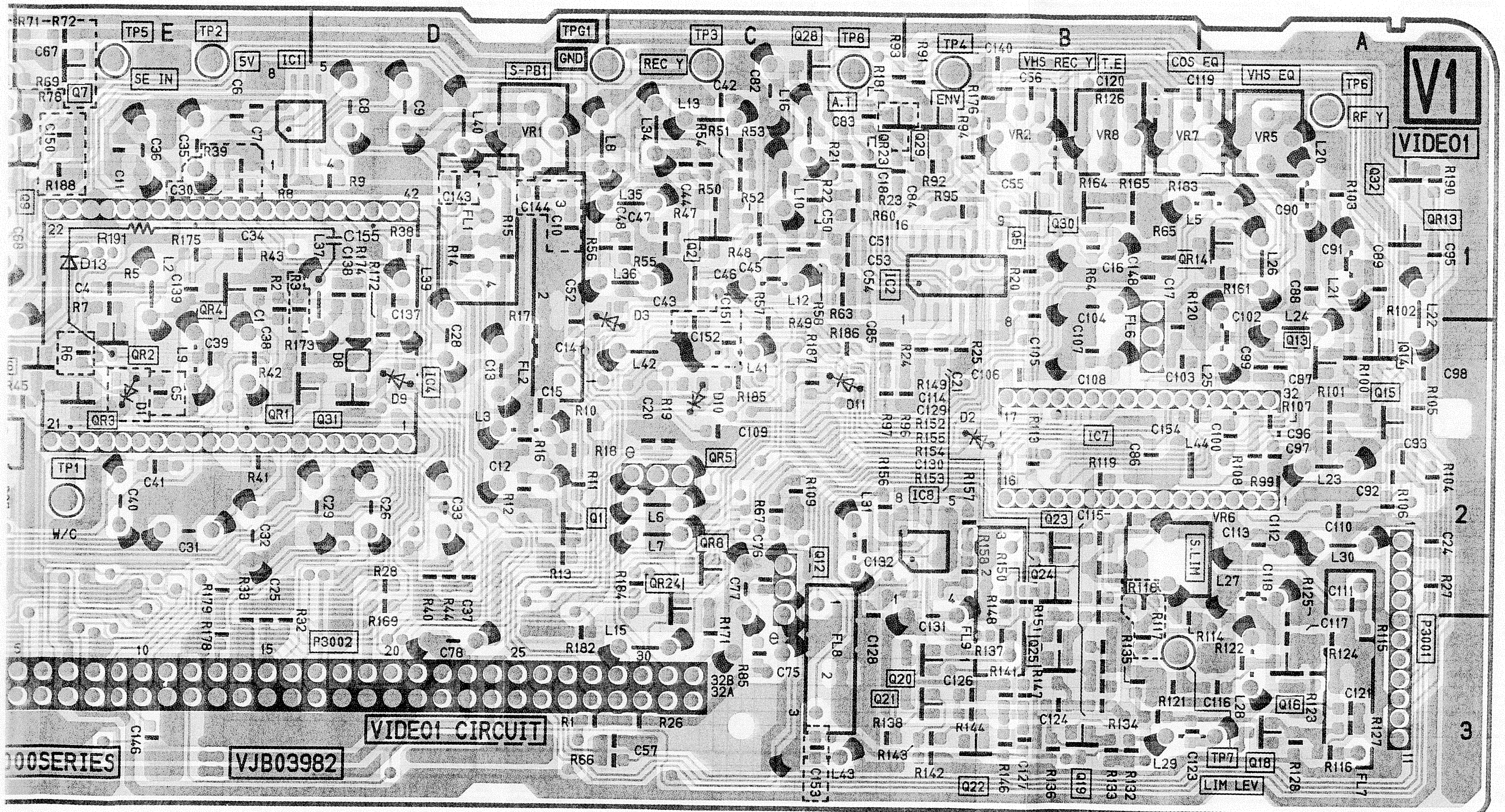
IC6603 MN1280-L
IC6604 MN1280-R


V 1
V 2
POWER VOLTAGE DET
OUTPUT CIRCUIT
3
2
1

VIDEO (1) C.B.A. (VEP03982A)

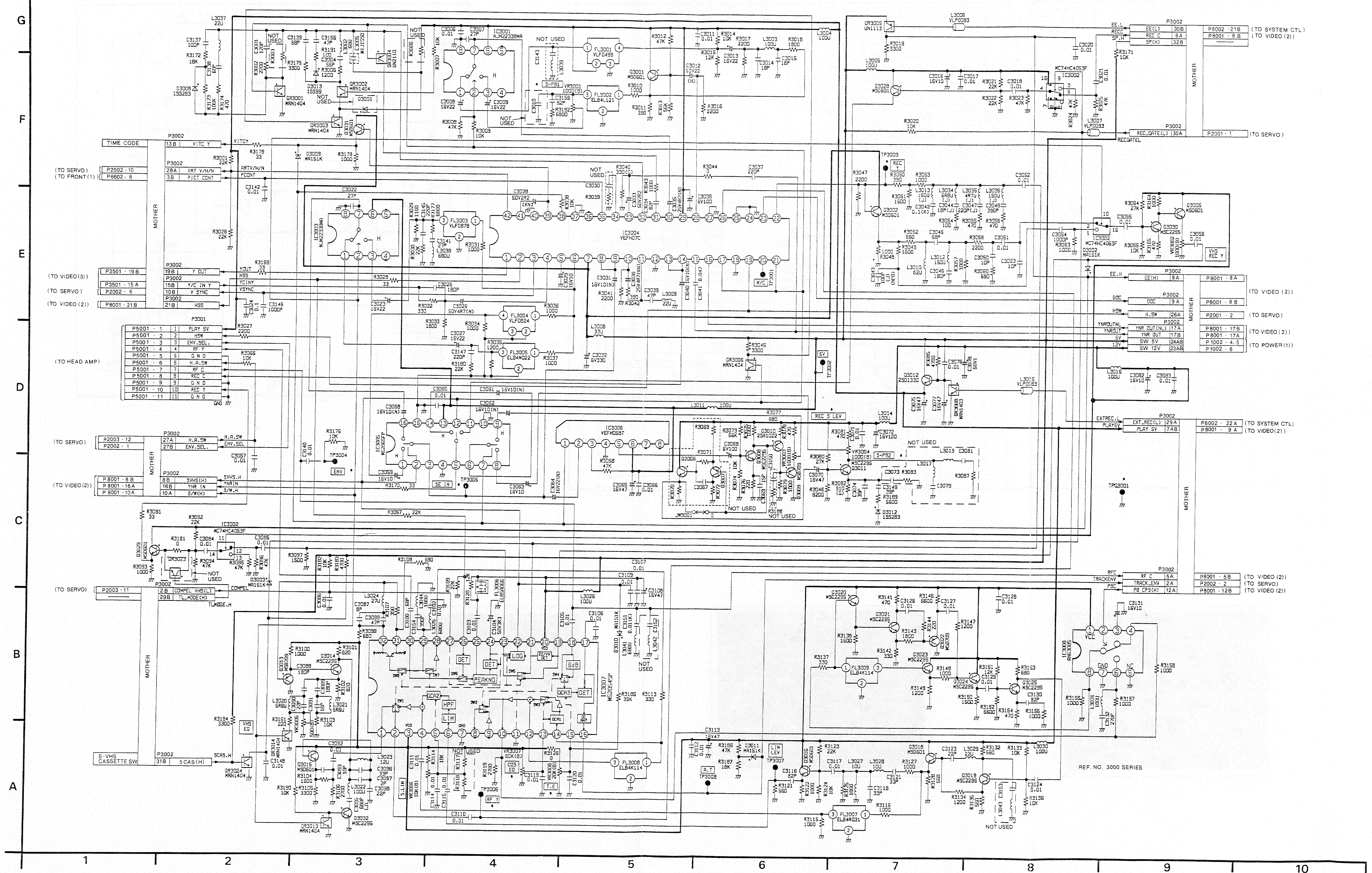
VIDEO (1) C.B.A. (VEP03982A)


G
F
E
D
C
B
TP1
TP2
TP3
TP4
TP5
TP8
TPG1
GND
5V
SE IN
S-PB1
S-PB2
REC S LEV
REC Y
A.T
ENV
VHS REC Y
W/C
VR1
VR2
VR3
VR4
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
FL1
FL2
FL3
FL4
FL5
FL8
FL9
P3002
VIDEO1 CIRCUIT
REF.NO.3000SERIES
VJB03982
VEP03982
1A
1B
32A
32B

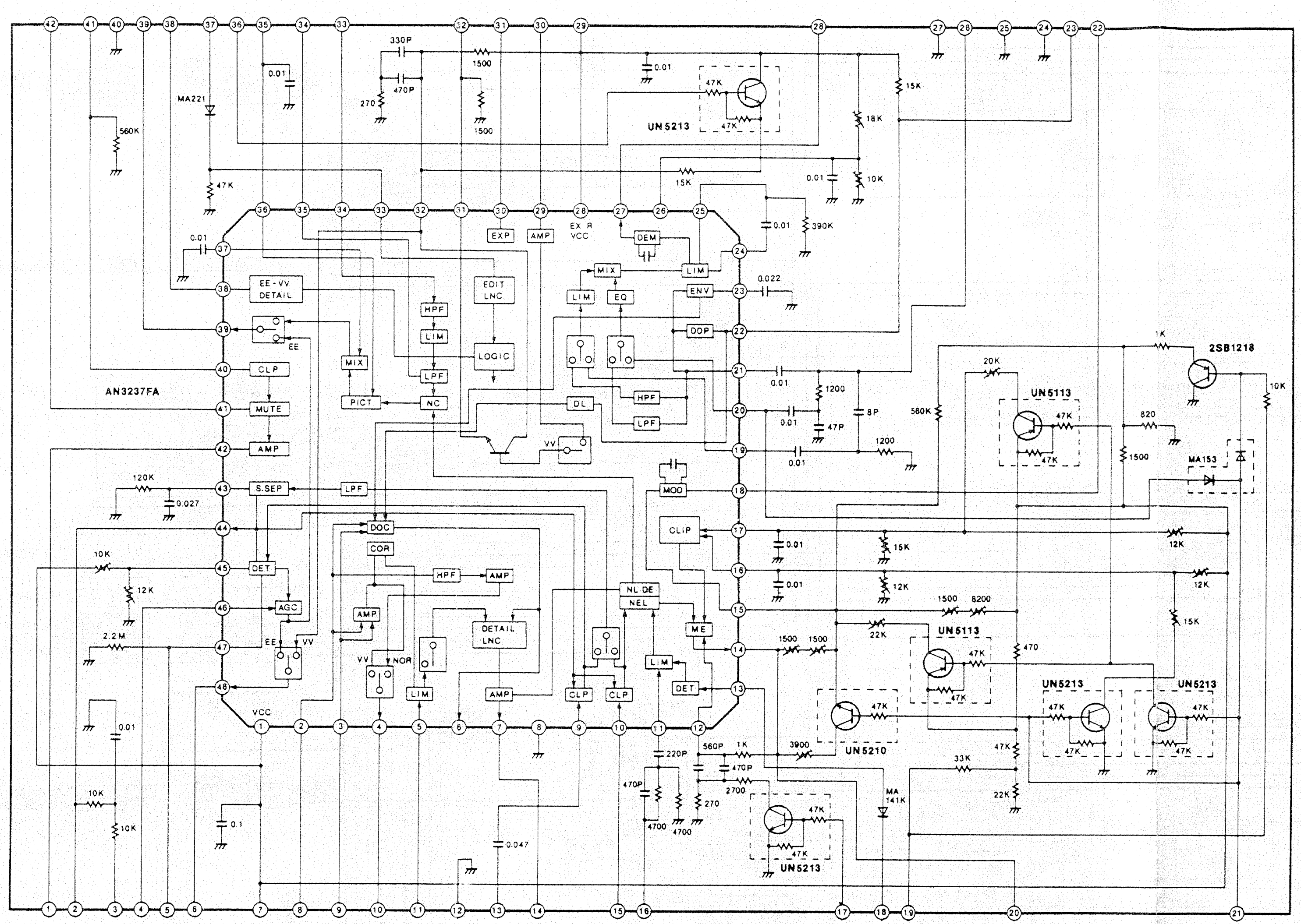

V1
VIDEO1
VIDEO1 CIRCUIT
VJB03982
00SERIES
A
B
C
D
E
1
2
3
TP1
TP2
TP3
TP4
TP5
TP6
TP7
TP8
TPG1
GND
S-PB1
REC Y
SE IN
5V
IC1
IC2
IC4
IC7
IC8
A.T
ENV
VHS REC Y
T.E
COS EQ
VHS EQ
RF Y
S.LIM
LIM LEV
W/C
P3001
P3002
VR1
VR2
VR5
VR6
VR7
VR8
FL1
FL2
FL6
FL7
FL8
FL9

(FOIL SIDE)

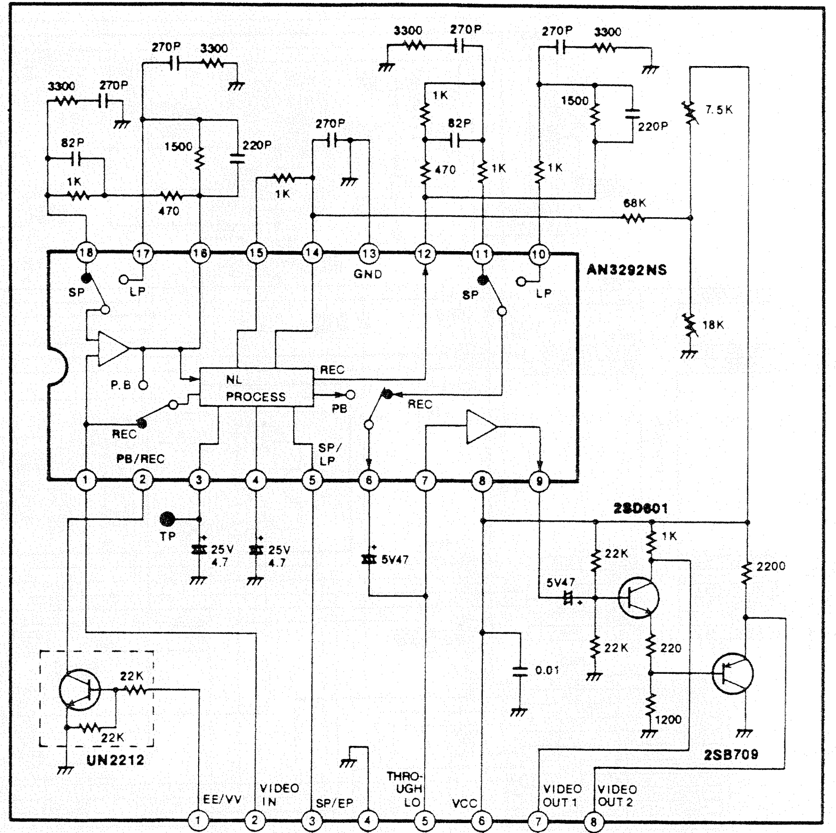
VIDEO (1) SCHEMATIC DIAGRAM

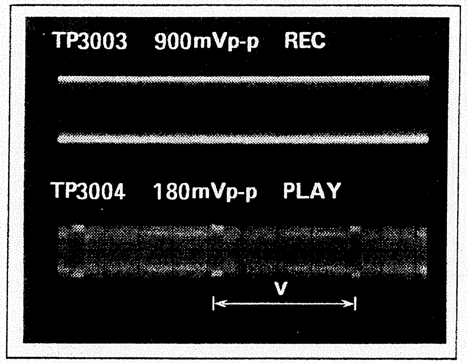

G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
TIME CODE
P3002
13B VITC Y
(TO SERVO) P2002 - 10
(TO FRONT(1)) P6802 - 8
28A ARTV/H/N
3B PICT CONT
MOTHER
(TO VIDEO(3)) P3501 - 19B
P3501 - 15A
(TO SERVO) P2002 - 6
(TO VIDEO(2)) P8001 - 21B
19B Y OUT
15B Y/C IN Y
10B V SYNC
21B HSS
P3001
(TO HEAD AMP)
P5001 - 1
P5001 - 2
P5001 - 3
P5001 - 4
P5001 - 5
P5001 - 6
P5001 - 7
P5001 - 8
P5001 - 9
P5001 - 10
P5001 - 11
PLAY 5V
HSW
ENV.SEL.
RF Y
GND
H.A.SW
RF C
REC C
GND
REC Y
GND
(TO SERVO) P2003 - 12
P2002 - 1
27A H.A.SW
27B ENV.SEL.
(TO VIDEO(2)) P8001 - 8B
P8001 - 16A
P8001 - 10A
8B SVHS(H)
16B YNR IN
10A B/W(H)
(TO SERVO) P2003 - 11
2B COMPEL VHS(L)
29B TL.MODE(H)
S-VHS CASSETTE SW
31B 5CAS(H)
IC3001 NJM2233BMA
IC3003 NJM2233BMA
IC3004 VEFH07C
IC3005 MC3065P
IC3006 VEFH058T
IC3007 M52054SP
IC3002 MC74HC4053F
IC3008 AN6395
FL3001 VLF0499
FL3002 ELB4L121
FL3003 VLF0878
FL3004 VLF0824
FL3005 ELB4N022
FL3006 ELB4K114
FL3007 ELB4R031
FL3008 ELB4K114
FL3009 ELB4K114
NOT USED
TP3001
TP3003
TP3004
TP3005
TP3006
TP3007
TP3008
REC Y
REC 5 LEV
ENV
SE IN
5V
VHS EQ
S.LIM
RF Y
R.T
LIM LEV
VHS REC Y
DET
LOG
PEAKING
HPF
LIM
GCA2
GCA3
COS EQ
T.E
P3002
EE.L
REC C
SP.H
EE(L) 30B
REC C 6A
SP(H) 32B
P6002 - 21B (TO SYSTEM CTL)
P8001 - 6B (TO VIDEO (2))
REC_GATE(L) 30A
P2001 - 1 (TO SERVO)
RECGATEL
EE.H
EE(H) 8A
P8001 - 8A
DOC 9A
P8001 - 9B (TO VIDEO (2))
HSW
H.SW 26A
P2001 - 2 (TO SERVO)
YNROUTNL
YNROUT
5V
12V
YNR OUT(NL) 17A
YNR OUT 17B
SW 5V 24AB
SW 12V 23AB
P8001 - 17B
P8001 - 17A
P1002 - 4.5
P1002 - 6
(TO VIDEO (2))
(TO POWER(1))
EXTREC.L
PLAY5V
EXT_REC(L) 29A
PLAY 5V 7AB
P6002 - 22A (TO SYSTEM CTL)
P8001 - 9A (TO VIDEO(2))
RFC
TRACKENV
PBC
RF C 5A
TRACK_ENV 2A
PB CPS(H) 12A
P8001 - 5B (TO VIDEO (2))
P2002 - 2 (TO SERVO)
P8001 - 12B (TO VIDEO (2))
REF. NO. 3000 SERIES

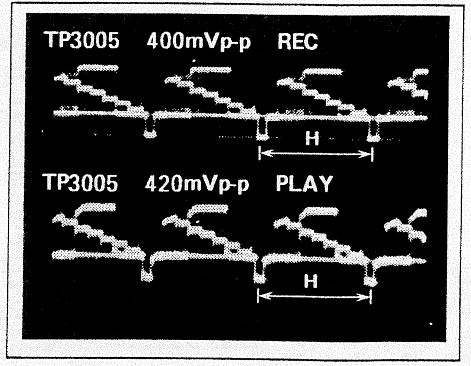
IC3004 VEFH07C

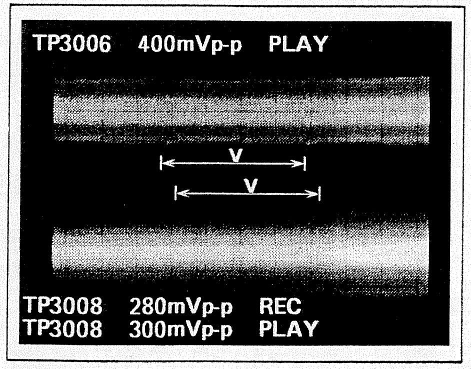

AN3237FA
EE-VV DETAIL
CLP
MUTE
AMP
S.SEP
LPF
DOC
COR
HPF
DET
AGC
EE
VV
NOR
LIM
DETAIL LNC
EDIT LNC
LOGIC
MIX
PICT
NC
DL
EXP
EX R VCC
DEM
ENV
EQ
DDP
MOD
CLIP
NL DE
NEL
ME
CLP
VCC
UN5213
UN5113
UN5210
2SB1218
MA221
MA153
MA 141K

IC3006 VEFH05BT

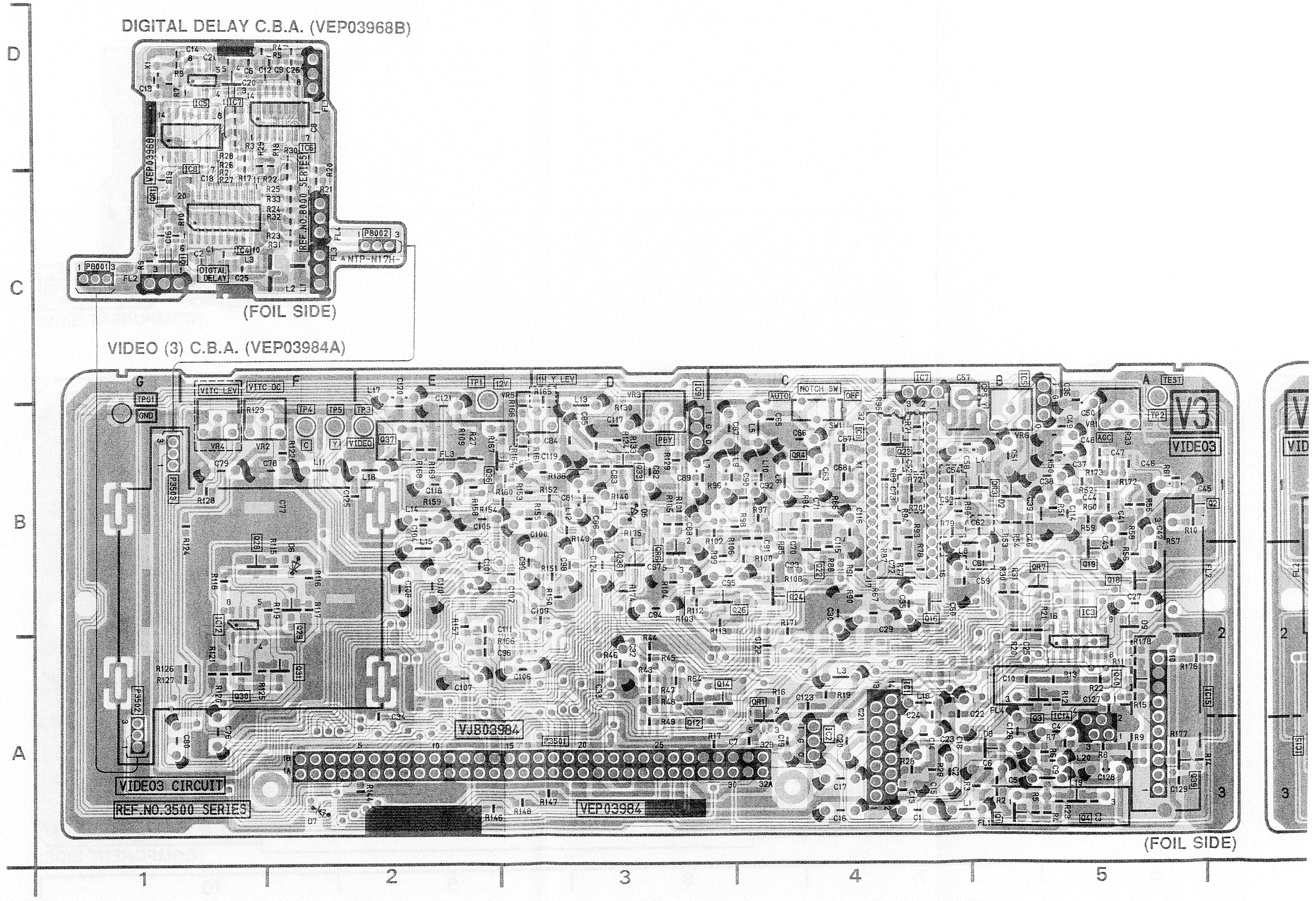

AN3292NS
SP
LP
GND
P.B
REC
NL PROCESS
PB
PB/REC
SP/LP
TP
25V 4.7
5V47
2SD601
2SB709
UN2212
EE/VV
VIDEO IN
SP/EP
THROUGH LO
VCC
VIDEO OUT 1
VIDEO OUT 2

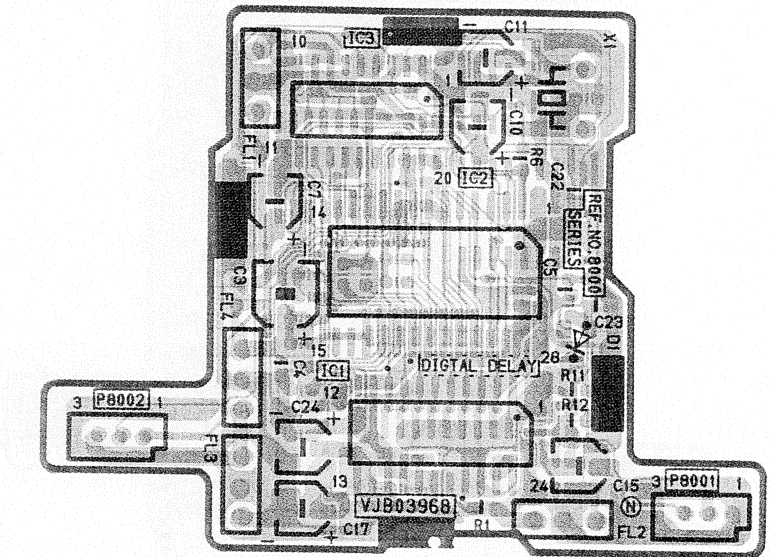




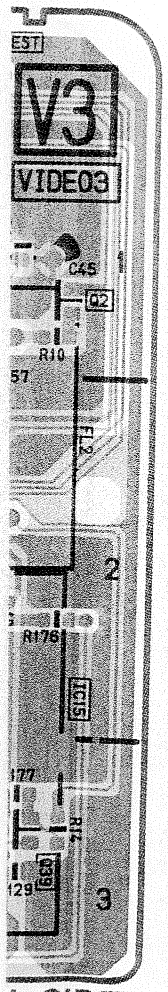


VIDEO (3) C.B.A. (VEP03984A) AND DIGITAL DELAY C.B.A. (VEP03968B)

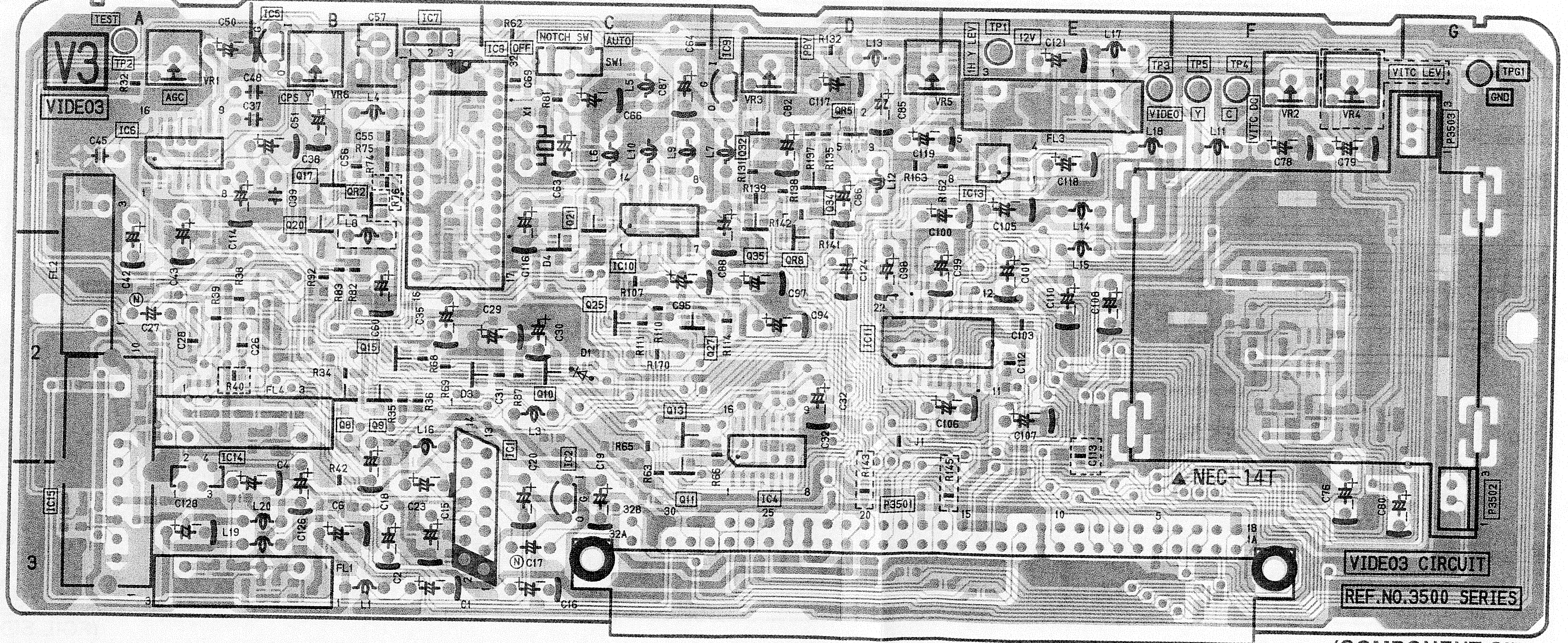

DIGITAL DELAY C.B.A. (VEP03968B)
(FOIL SIDE)
VIDEO (3) C.B.A. (VEP03984A)
(FOIL SIDE)
D
C
B
A
1
2
3
4
5
VEP03968
REF.NO.8000 SERIES
P8001
P8002
NTP-N17H-
DIGITAL DELAY
VITC LEV
VITC DC
VR4
VR2
TP4
TP5
TP3
C
Y
VIDEO
TP1
12V
1H Y LEV
AUTO
NOTCH SW
OFF
TEST
TP2
V3
VIDEO3
AGC
TP61
GND
P3503
P3502
P3501
VJB03984
VIDEO3 CIRCUIT
REF.NO.3500 SERIES
VEP03984
PBY
SW1
IC1
IC2
IC3
IC5
IC6
IC7
IC9
IC12
IC14
IC15
FL1
FL2
FL3
FL4


IC3
C11
X1
C10
R6
IC2
C22
REF.NO.8000 SERIES
FL1
C7
C9
FL2
C5
C23
D1
IC1
DIGITAL DELAY
R11
R12
C24
P8002
FL3
VJB03968
R1
C15
P8001
C17
FL2

(COMPONENT SIDE)

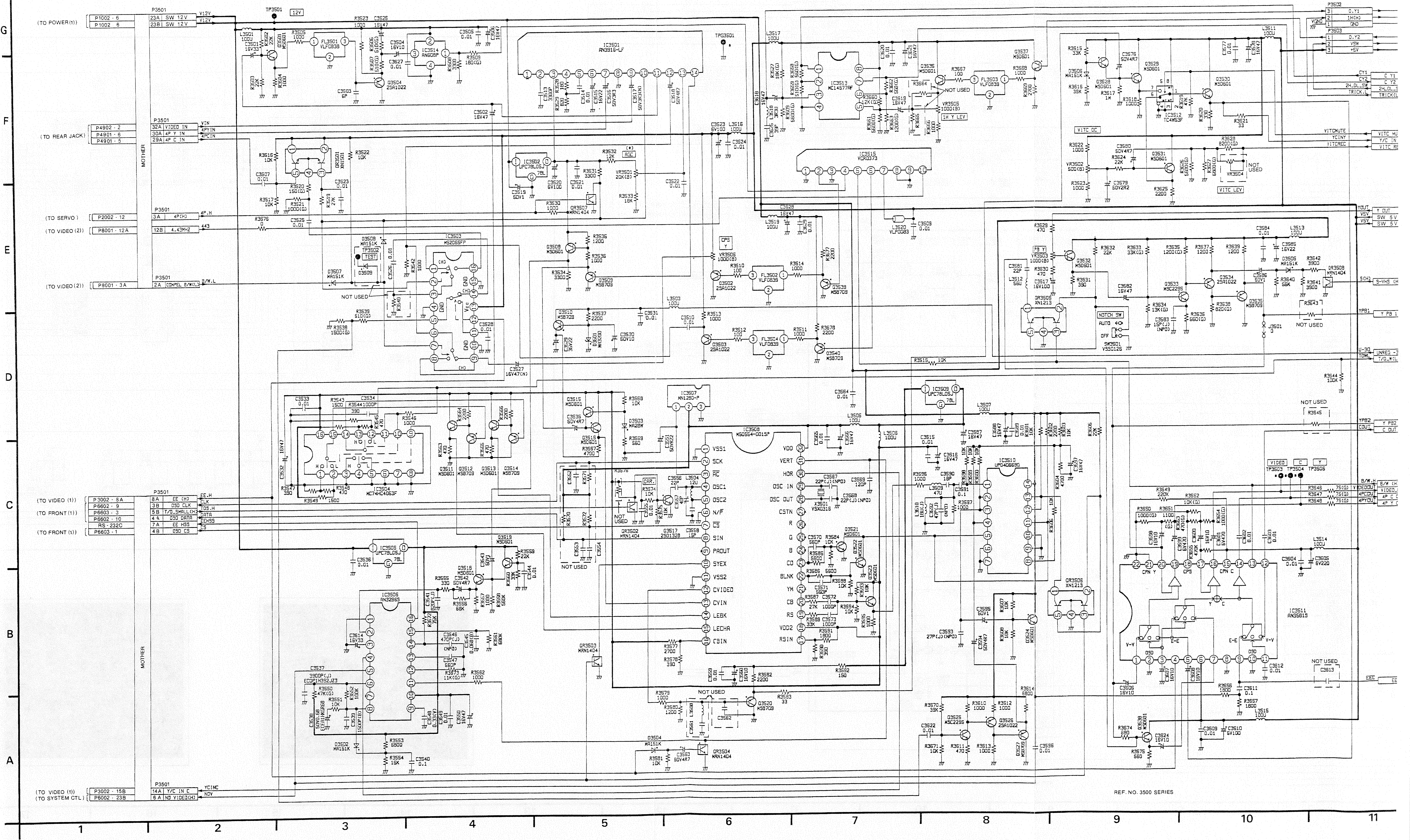

EST
V3
VIDEO3
C45
Q2
R10
FL2
R176
IC15
3

L SIDE)

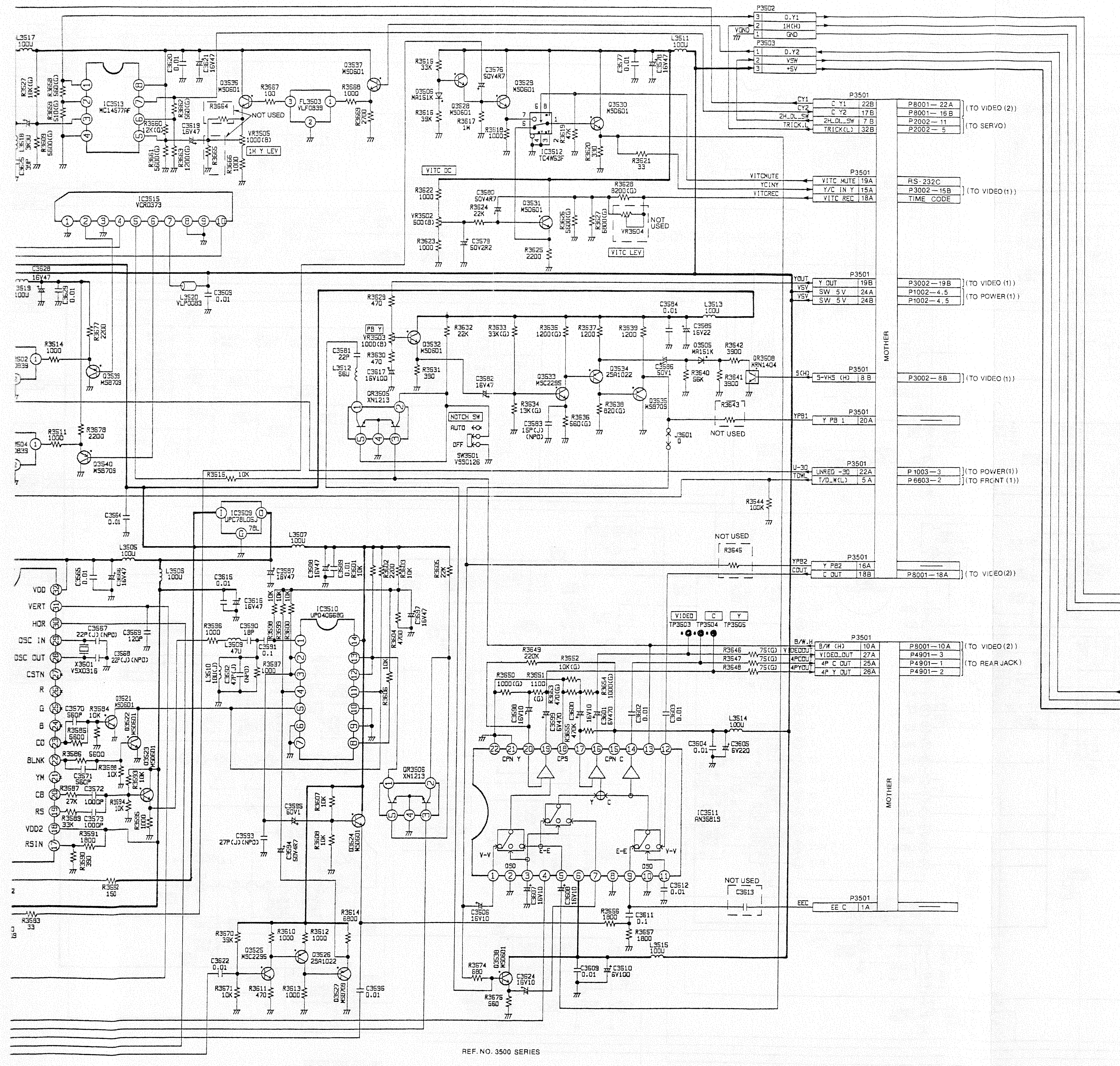

V3
VIDEO3
TEST
TP2
A
AGC
VR1
B
CPS Y
VR6
IC5
IC7
C
NOTCH SW
AUTO
SW1
IC8
OFF
IC9
VR3
PBY
D
E
TP1
12V
H.Y LEV
VR5
F
TP3
TP5
TP4
VIDEO
Y
C
VR2
VR4
VITC LEV
G
TPG1
GND
P3503
FL3
VITC DG
IC6
IC10
IC11
IC12
IC13
IC14
FL4
FL1
IC1
IC2
IC4
P3501
NEC-14T
P3502
VIDEO3 CIRCUIT
REF.NO.3500 SERIES
6
7
8
9
10

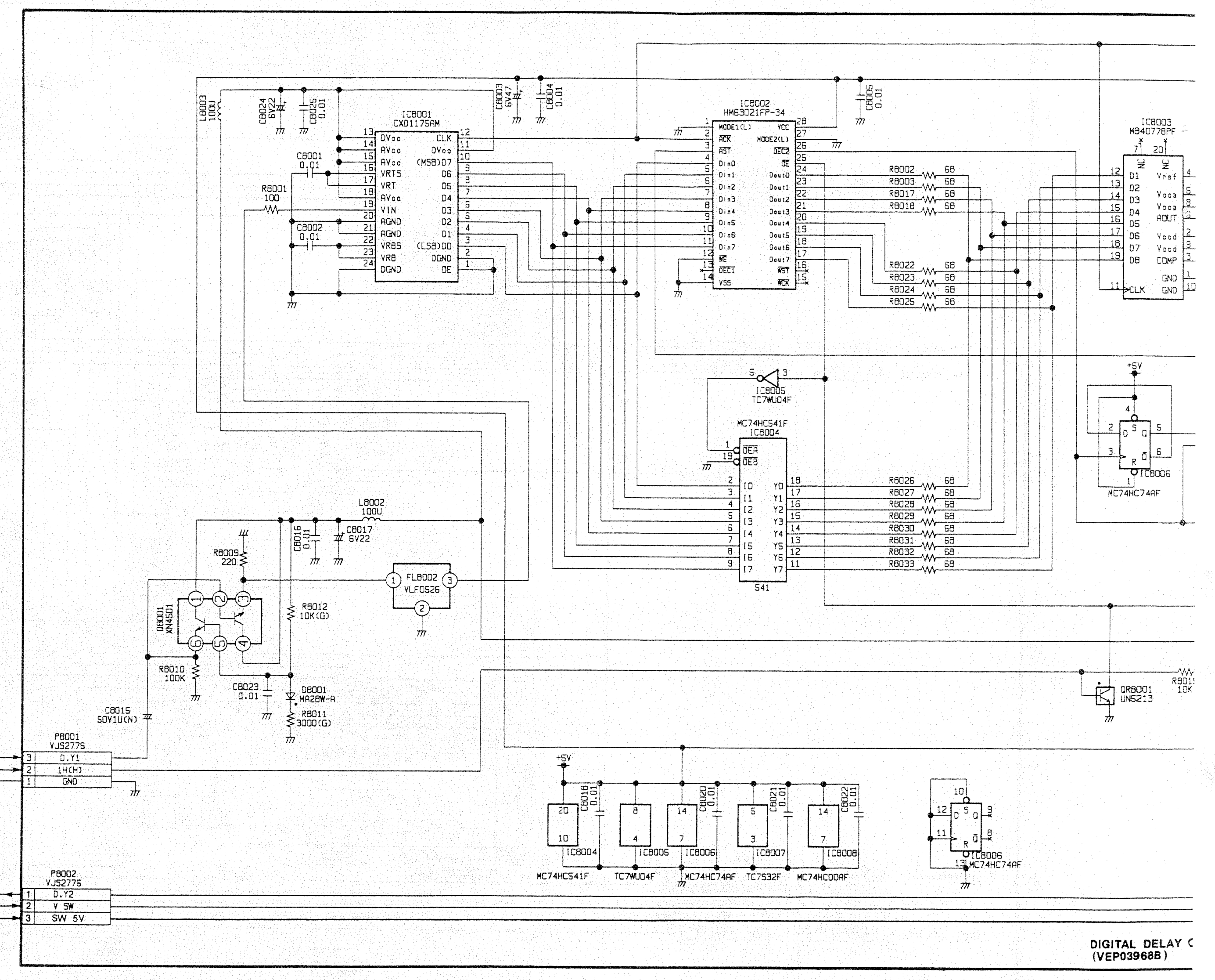
(COMPONENT SIDE)

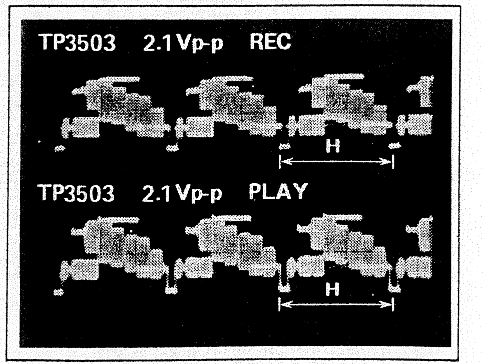
VIDEO (3) SCHEMATIC DIAGRAM

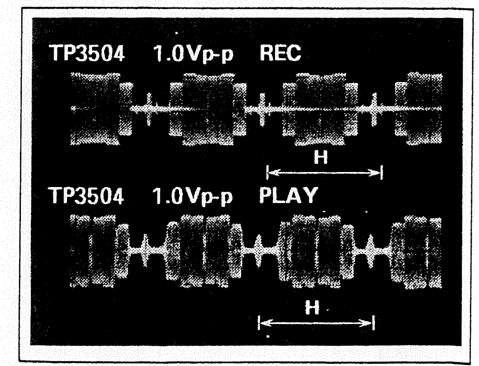

G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
(TO POWER(1))
P1002 - 6
P1002 - 6
P3501
23A SW 12V
23B SW 12V
V12V
TP3501
12V
(TO REAR JACK)
P4902 - 2
P4901 - 6
P4901 - 5
32A VIDEO IN
30A 4P Y IN
29A 4P C IN
(TO SERVO)
P2002 - 12
(TO VIDEO (2))
P8001 - 12A
3A 4P(H)
12B 4.43MHZ
(TO VIDEO (2))
P8001 - 3A
2A COMPEL B/W(L)
MOTHER
(TO VIDEO (1))
(TO FRONT (1))
(TO FRONT (1))
P3002 - 8A
P6602 - 9
P6603 - 3
P6602 - 10
RS - 232C
P6603 - 1
8A EE (H)
3B OSD CLK
5B T/D_SMALL(H)
4A OSD DATA
7A EE H35
4B OSD CS
(TO VIDEO (1))
(TO SYSTEM CTL)
P3002 - 15B
P6002 - 23B
14A Y/C IN C
6A NO VIDEO(H)
YCINC
NOV
IC3501 AN3916-LF
IC3513 MC14577AF
IC3515 VCR0373
IC3503 MS2065FP
IC3504 MC74HC4053F
IC3506 AN3296S
IC3507 MN1280-P
IC3508 MS0554-001SP
IC3509 UPC78L05J
IC3510 UPD4066BG
IC3511 AN3581S
IC3512 TC4W53F
IC3514 AN6050P
IC3502 UPC78L05J
IC3505 UPC78L05J
VSS1
SCK
RC
OSC1
OSC2
N/F
CS
SIN
PROUT
SYEX
VSS2
CVIDEO
CVIN
LEBK
LECHA
CBIN
VDD
VERT
HOR
OSC IN
OSC OUT
CSTN
R
G
B
CO
BLNK
YM
CB
RS
VDD2
RSIN
NOT USED
TEST
VITC DC
VITC LEV
1H Y LEV
NOTCH SW
AUTO
OFF
SW3501 VSS0126
P3502
D.Y1
1H(H)
GND
P3503
D.Y2
VSW
+5V
CY1
CY2
2H_DL_SW
TRICK_L
VITCMUTE
YCINY
VITCREC
VITC MU
Y/C IN
VITC RE
YOUT
VSV
Y OUT
SW 5V
SW 5V
S(H)
S-VHS (H)
YPB1
Y PB 1
U-30
TDWL
UNREG -3
T/D_W(L)
YPB2
COUT
Y PB2
C OUT
VIDEO
C
Y
TP3503
TP3504
TP3505
B/W(H)
VIDEO_OUT
4PCOUT
4PYCOUT
EEC
TPG3501

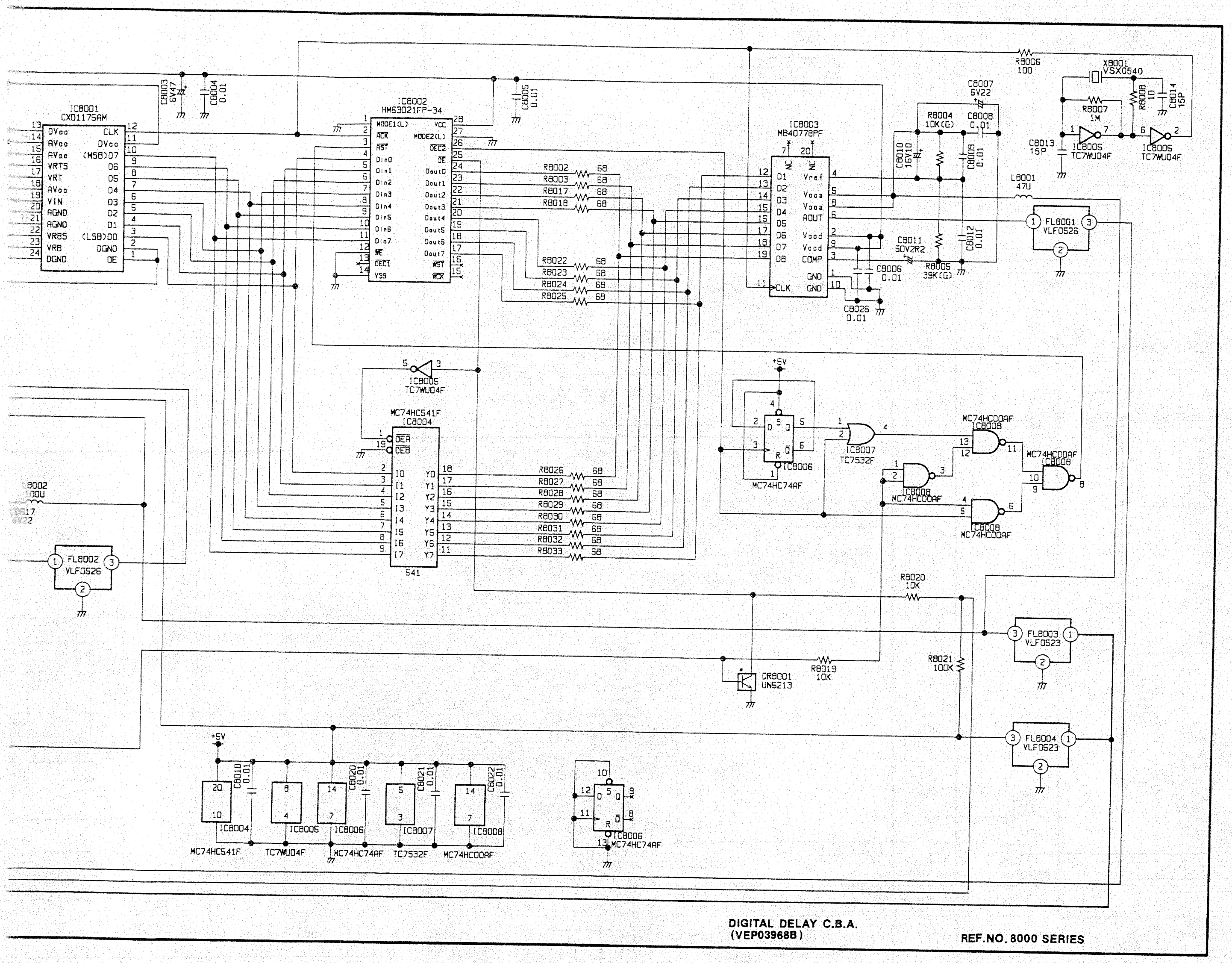
REF. NO. 3500 SERIES


P3502
D.Y1
1H(H)
GND
VGND
P3503
D.Y2
VSW
+5V
L3517 100U
IC3513 MC14577AF
Q3535 MSD601
Q3537 MSD601
FL3503 VLF0839
VR3505 1000(B)
1H Y LEV
NOT USED
L3511 100U
Q3506 MA151K
Q3528 MSD601
Q3529 MSD601
Q3530 MSD601
IC3512 TC4W53F
VITC DC
VITC LEV
VR3504
Q3531 MSD601
P3501
CY1
CY2
2H_DL_SW
TRICK_L
C Y1 22B
C Y2 17B
2H_DL_SW 7B
TRICK(L) 32B
P8001—22A
P8001—16B
P2002—11
P2002—5
(TO VIDEO (2))
(TO SERVO)
VITCMUTE
YC(NY
VITCREC
VITC MUTE 19A
Y/C IN Y 15A
VITC REC 18A
RS-232C
P3002—15B
TIME CODE
(TO VIDEO (1))
IC3515 VCR0373
L3520 VLP0083
YOUT
VSV
Y OUT 19B
SW 5V 24A
SW 5V 24B
P3002—19B
P1002—4.5
P1002—4.5
(TO VIDEO (1))
(TO POWER (1))
PB Y
VR3503 1000(B)
Q3532 MSD601
Q3533 MSC2295
Q3534 2SA1022
Q3535 MSB709
Q3538 MA151K
QR3508 XRN1404
QR3503 XN1213
NOTCH SW
AUTO
OFF
SW3501 YSS0126
S(H)
S-VHS (H) 8B
P3002—8B
(TO VIDEO (1))
YPB1
Y PB 1 20A
NOT USED
Q3539 MSB709
Q3540 MSB709
U-30
TDW
UNREG -30 22A
T/D_W(L) 5A
P1003—3
P6603—2
(TO POWER(1))
(TO FRONT (1))
IC3509 UPC78L05J
L3505 100U
L3506 100U
L3507 100U
IC3510 UPD4066BG
X3501 VSX0318
VDD
VERT
HOR
OSC IN
OSC OUT
CSTN
R
G
B
CO
BLNK
YM
CB
RS
VDD2
RSIN
YPB2
COUT
Y PB2 16A
C OUT 18B
P8001—18A
(TO VIDEO(2))
VIDEO
C
Y
TP3503
TP3504
TP3505
B/W.H
VDEOOUT
4PCOUT
4PYOUT
B/W (H) 10A
VIDEO_OUT 27A
4P C OUT 25A
4P Y OUT 26A
P8001—10A
P4901—3
P4901—1
P4901—2
(TO VIDEO(2))
(TO REAR JACK)
QR3506 XN1213
IC3511 AN3581S
CPN Y
CPS
CPN C
OSD
V-V
E-E
Y-V
Q3524 MSD601
Q3525 MSC2295
Q3526 2SA1022
Q3527 MSB709
Q3536 MSD601
L3514 100U
L3515 100U
NOT USED
EEC
EE C 1A
P3501
MOTHER
MOTHER
REF. NO. 3500 SERIES
7
8
9
10
11
12


IC8001 CXD1175AM
IC8002 HM63021FP-34
IC8003 MB40778PF
IC8004 MC74HC541F
IC8005 TC7WU04F
IC8006 MC74HC74AF
IC8007 TC7S32F
IC8008 MC74HC00AF
L8002 100U
FL8002 VLF0526
Q8001 XN4501
D8001 MA28W-A
QR8001 UN5213
P8001 VJS2776
D.Y1
1H(H)
GND
P8002 VJS2776
D.Y2
V SW
SW 5V
+5V
S41
DIGITAL DELAY C
(VEP03968B)
13
14
15
16
17

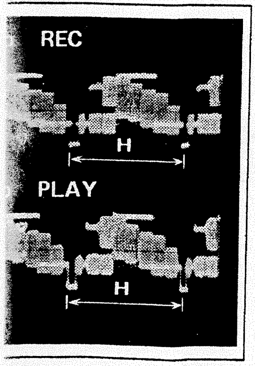

TP3503 2.1Vp-p REC
H
TP3503 2.1Vp-p PLAY
H

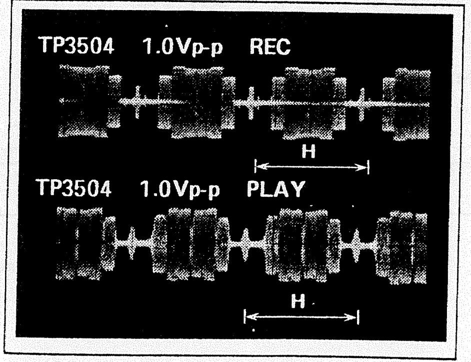

TP3504 1.0Vp-p REC
H
TP3504 1.0Vp-p PLAY
H

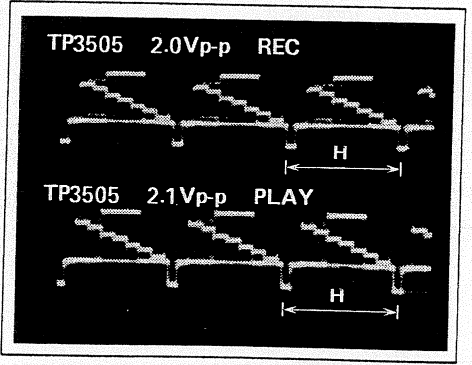

IC8001 CXD1175AM
IC8002 HM63021FP-34
IC8003 MB40778PF
IC8004 MC74HC541F
IC8005 TC7WU04F
IC8006 MC74HC74AF
IC8007 TC7532F
IC8008 MC74HC00AF
X8001 VSX0540
FL8001 VLF0S26
FL8002 VLF0S26
FL8003 VLF0S23
FL8004 VLF0S23
QR8001 UNS213
L8001 47U
+5V

DIGITAL DELAY C.B.A.
(VEP03968B)

REF.NO. 8000 SERIES

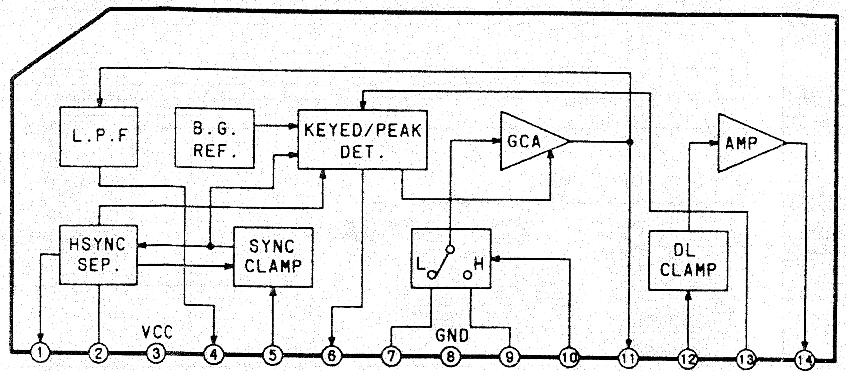




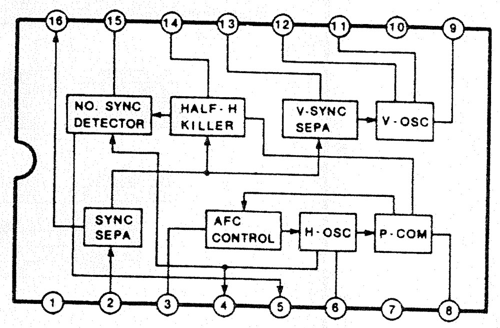


15 16 17 18 19

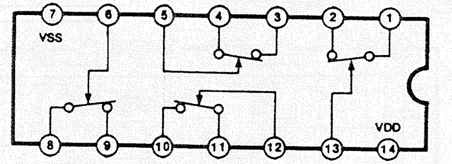
IC3501 AN3916-LF


L.P.F
B.G. REF.
KEYED/PEAK DET.
GCA
AMP
HSYNC SEP.
SYNC CLAMP
L
H
DL CLAMP
VCC
GND

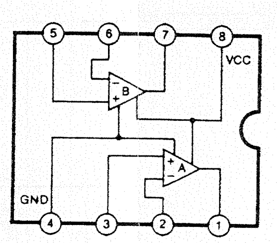
IC3506 AN3296S


NO. SYNC DETECTOR
HALF·H KILLER
V-SYNC SEPA
V·OSC
SYNC SEPA
AFC CONTROL
H·OSC
P·COM

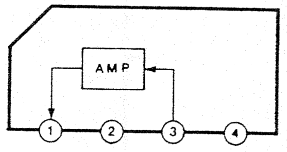
IC3510 uPD4066BG



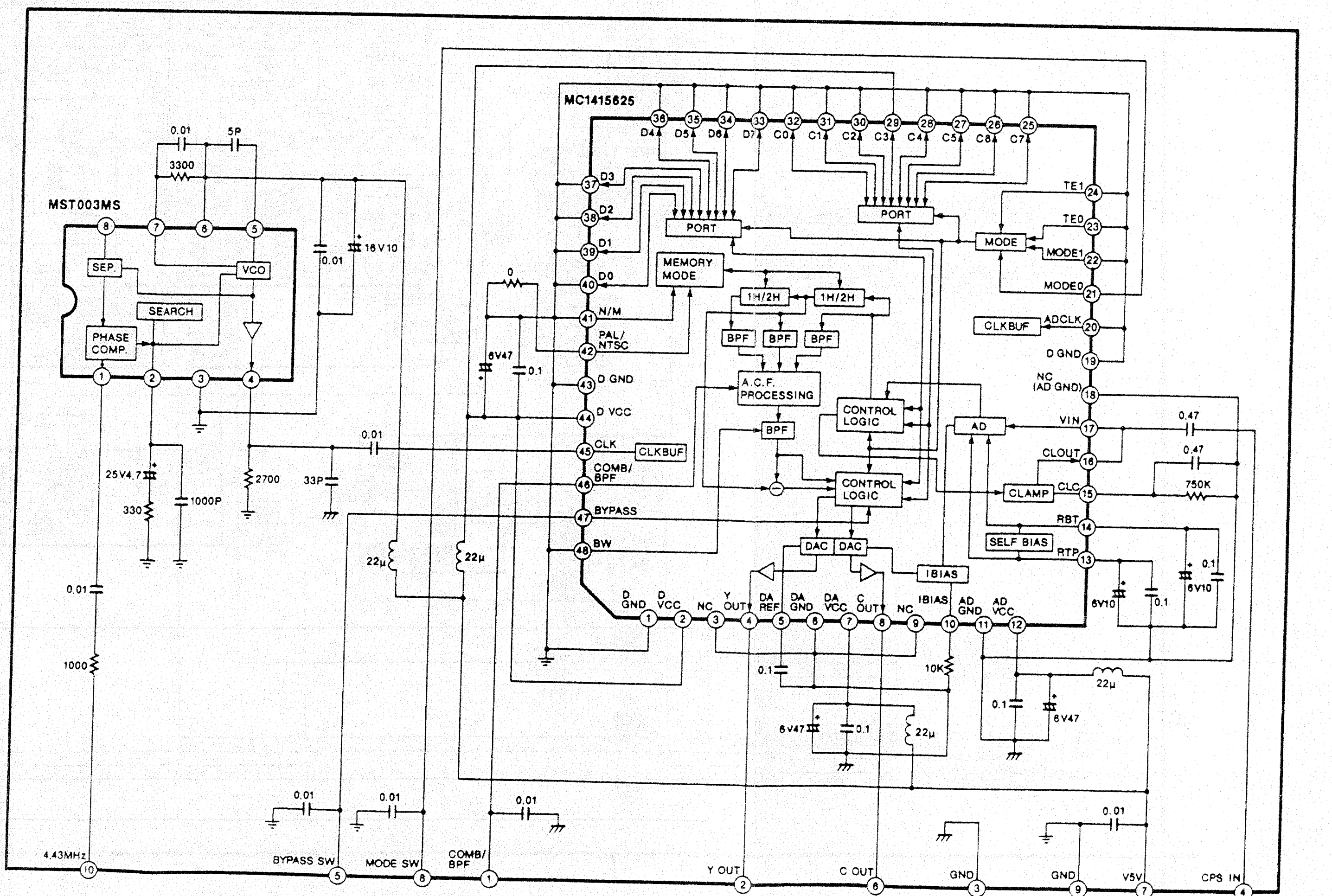
IC3513 MC14577AF



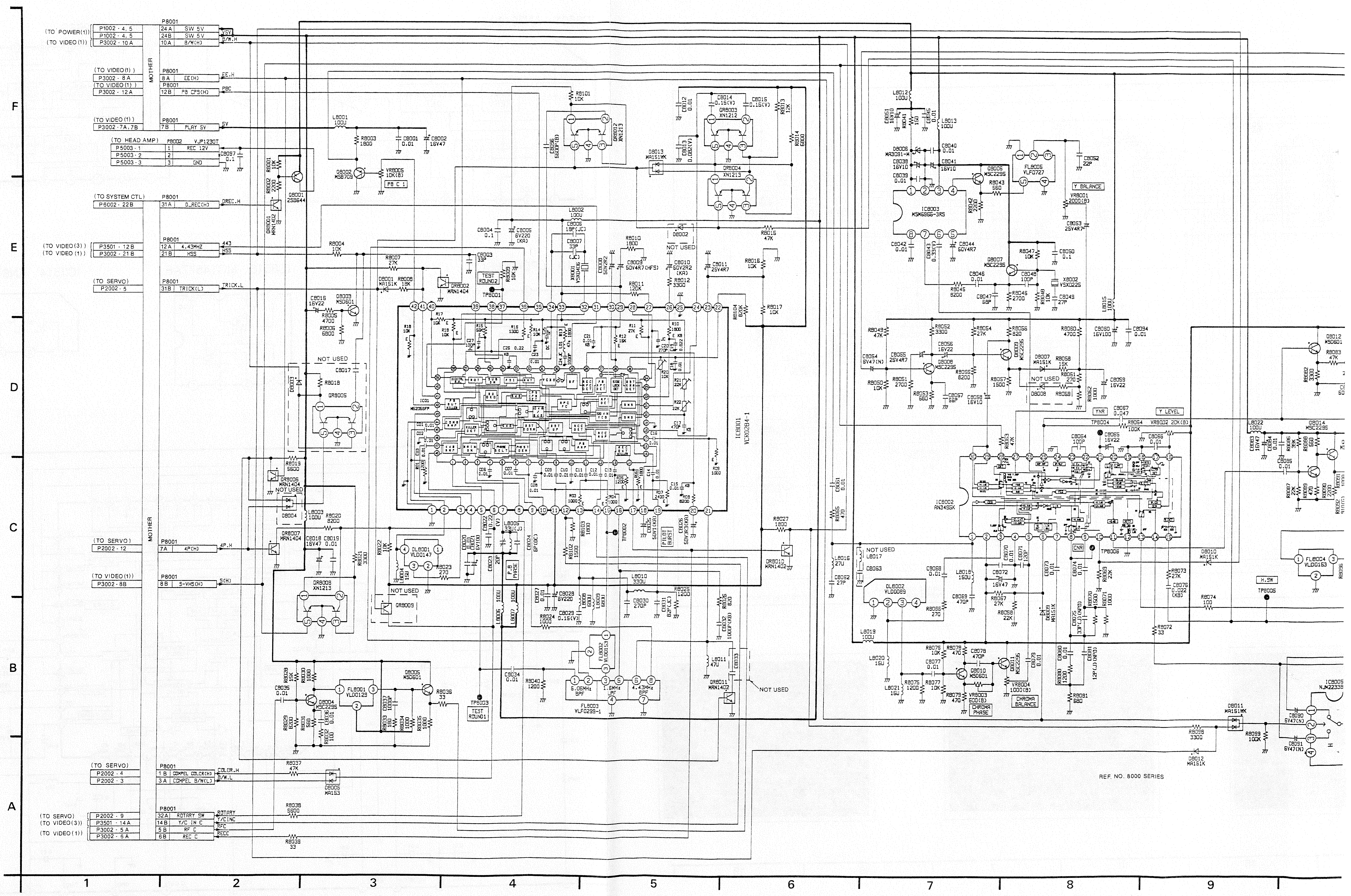
IC3514 AN608P

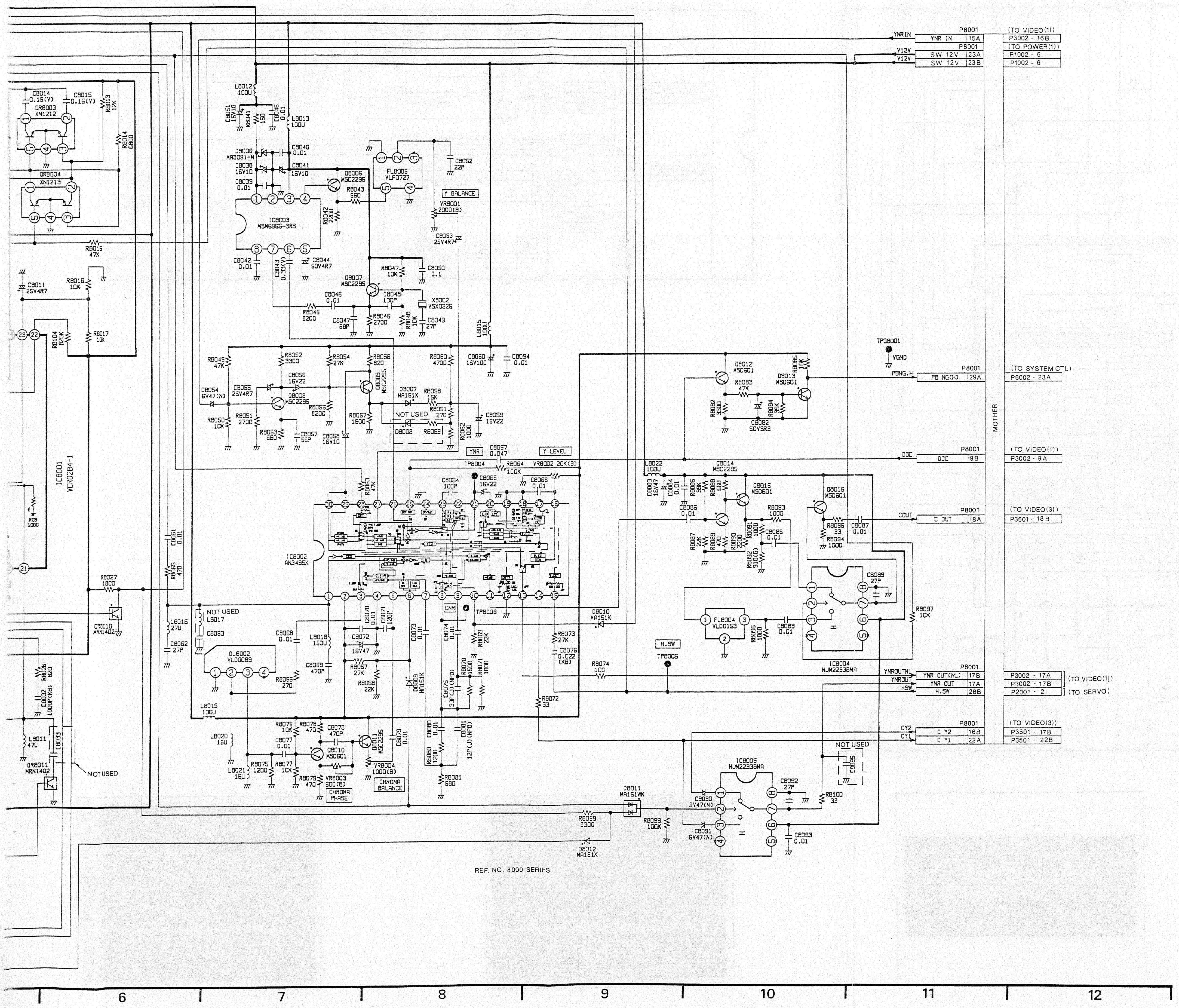


IC3515 VCR0373

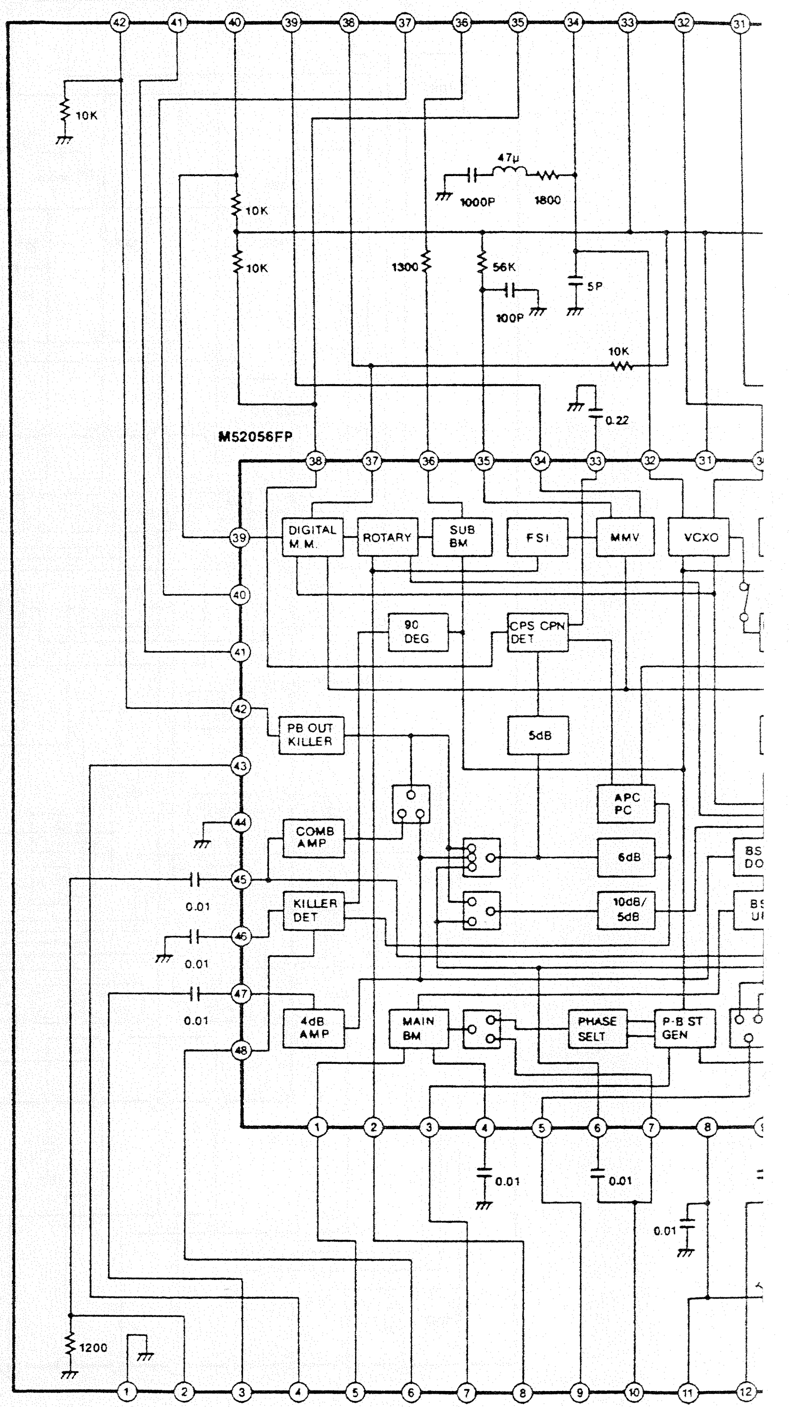

MC1415625
MST003MS
SEP.
VCO
SEARCH
PHASE COMP.
PORT
MEMORY MODE
1H/2H
BPF
A.C.F. PROCESSING
CONTROL LOGIC
CLKBUF
MODE
AD
CLAMP
SELF BIAS
DAC
IBIAS
D3
D2
D1
D0
N/M
PAL/NTSC
D GND
D VCC
CLK
COMB/BPF
BYPASS
BW
TE1
TE0
MODE1
MODE0
ADCLK
D GND
NC (AD GND)
VIN
CLOUT
CLC
RBT
RTP
4.43MHz
BYPASS SW
MODE SW
COMB/BPF
Y OUT
C OUT
GND
GND
V5V
CPS IN

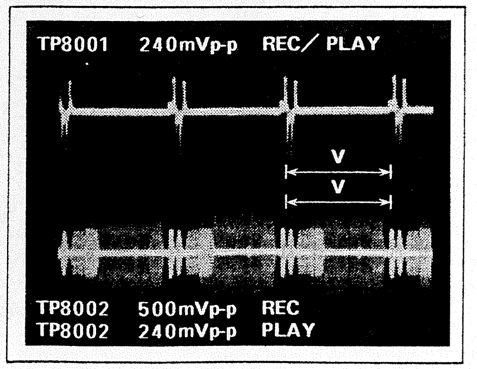
VIDEO (2) SCHEMATIC DIAGRAM


(TO POWER(1))
(TO VIDEO(1))
P1002 - 4, 5
P3002 - 10A
P8001
SW 5V
B/W(H)
MOTHER
(TO VIDEO(1))
P3002 - 8A
P3002 - 12A
EE(H)
PB CPS(H)
PLAY 5V
(TO HEAD AMP)
P5003 - 1
P5003 - 2
P5003 - 3
REC 12V
GND
(TO SYSTEM CTL)
P6002 - 22B
D_REC(H)
(TO VIDEO(3))
P3501 - 12B
P3002 - 21B
4.43MHZ
HSS
(TO SERVO)
P2002 - 5
TRICK(L)
P2002 - 12
4P(H)
P3002 - 8B
S-VHS(H)
P2002 - 4
P2002 - 3
COMPEL COLOR(H)
COMPEL B/W(L)
(TO VIDEO(3))
P2002 - 9
P3501 - 14A
P3002 - 5A
P3002 - 6A
ROTARY SW
Y/C IN C
RF C
REC C
IC8001
VCX0284-1
IC8002
AN3455K
IC8003
MSM6866-3RS
IC8005
NJM2233B
FL8001
VLD0129
FL8002
VLD0153
FL8003
VLF0295-1
FL8004
VLD0153
FL8005
VLF0727
DL8001
VLD0147
DL8002
VLD0089
TP8001
TP8003
TEST ROUND1
TEST ROUND2
TP8004
TP8005
TP8006
P.B PHASE
PILOT BURST
PB C 1
Y BALANCE
Y LEVEL
YNR
CNR
CHROMA PHASE
CHROMA BALANCE
H.SW
NOT USED
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
REF. NO. 8000 SERIES

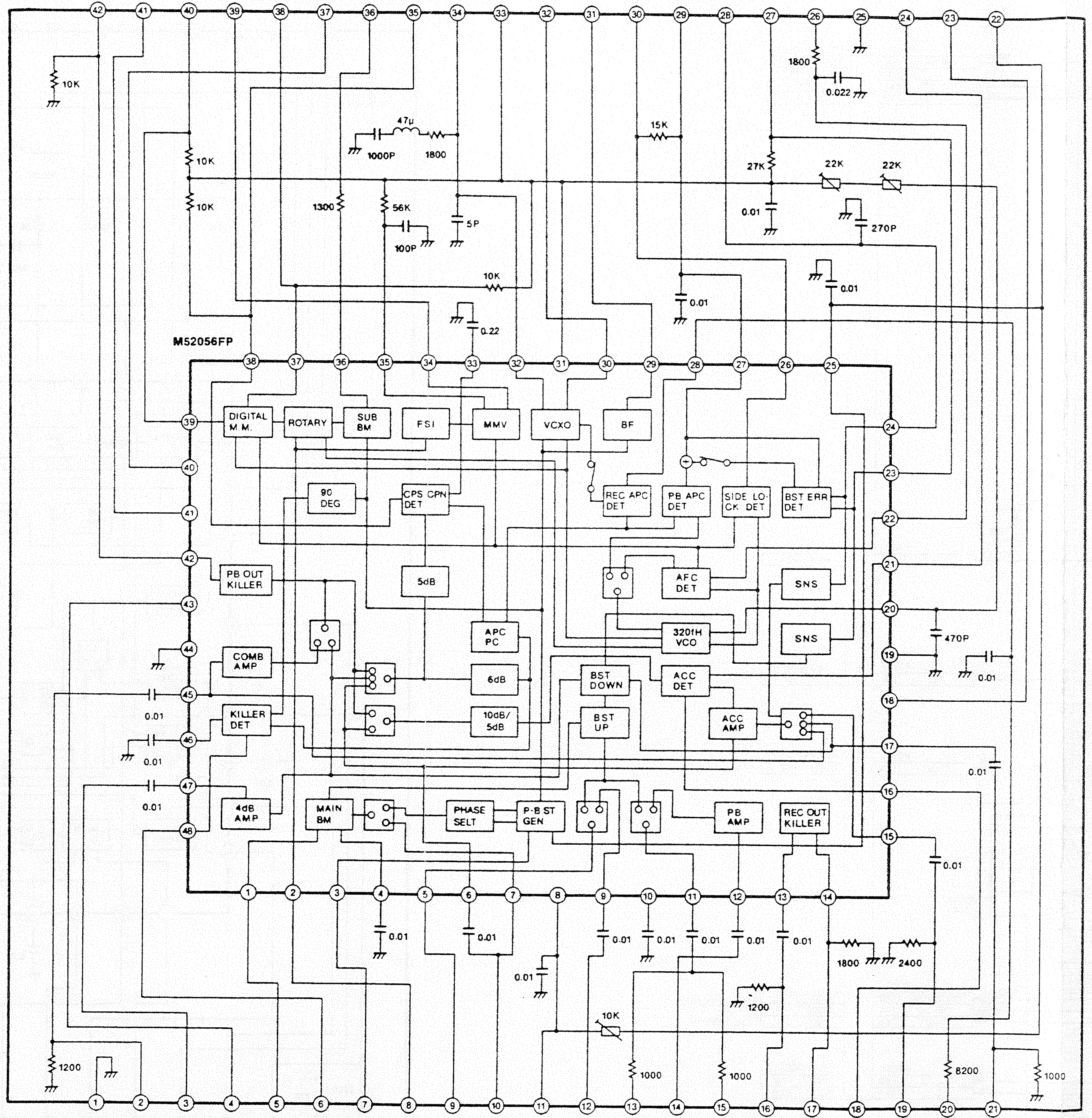

IC8002 AN3495K
IC8003 MSM6965-3RS
IC8004 NJM2233BMA
IC8005 NJM2233BMA
IC8001 VCR0284-1
Q8006 MSC2295
Q8007 MSC2295
Q8008 MSC2295
Q8009 MSC2295
Q8010 MSD601
Q8011 MSC2295
Q8012 MSD601
Q8013 MSD601
Q8014 MSC2295
Q8015 MSD601
Q8016 MSD601
FL8005 VLF0727
FL8004 VLD0163
DL8002 VLD0085
X8002 VSX0225
Y BALANCE
Y LEVEL
YNR
CNR
H.SW
CHROMA PHASE
CHROMA BALANCE
NOT USED
TP8004
TP8005
TP8006
TPG8001
YGND
P8001
YNR IN 15A
SW 12V 23A
SW 12V 23B
PB NG(H) 29A
DOC 19B
C OUT 18A
YNR OUT(ML) 17B
YNR OUT 17A
H.SW 26B
C Y2 16B
C Y1 22A
(TO VIDEO(1)) P3002 - 16B
(TO POWER(1)) P1002 - 6 P1002 - 6
(TO SYSTEM CTL) P6002 - 23A
(TO VIDEO(1)) P3002 - 9A
(TO VIDEO(3)) P3501 - 18B
P3002 - 17A P3002 - 17B (TO VIDEO(1))
P2001 - 2 (TO SERVO)
(TO VIDEO(3)) P3501 - 17B P3501 - 22B
MOTHER
YNRIN
V12V
PBNG.H
DOC
COUT
YNROUTML
YNROUT
HSW
CY2
CY1
REF. NO. 8000 SERIES
6
7
8
9
10
11
12

IC8001 VCR0284-1

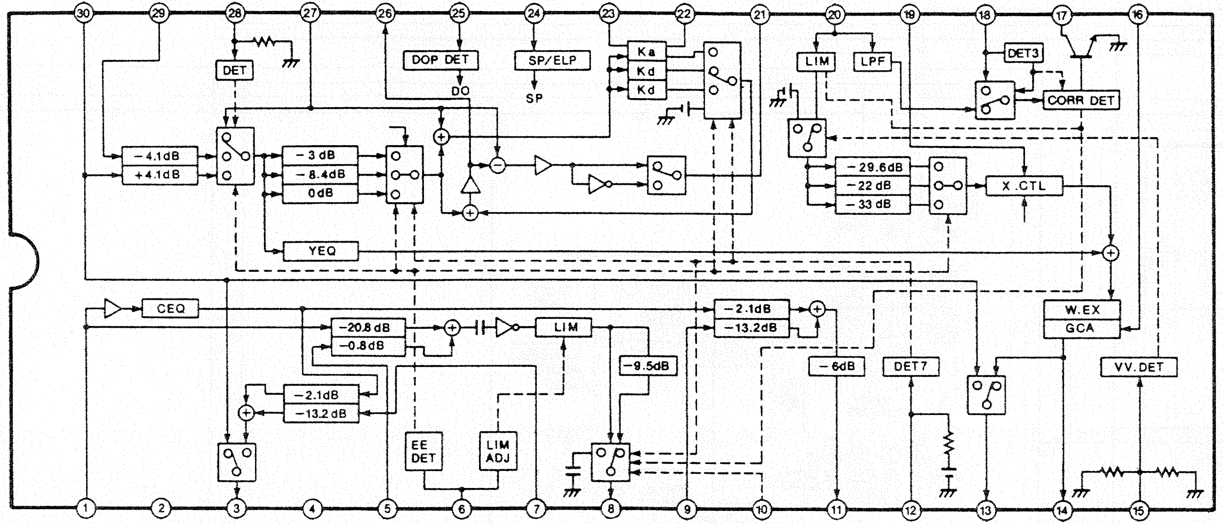

M52056FP
DIGITAL M.M.
ROTARY
SUB BM
FSI
MMV
VCXO
90 DEG
CPS CPN DET
PB OUT KILLER
5dB
APC PC
COMB AMP
6dB
KILLER DET
10dB/5dB
4dB AMP
MAIN BM
PHASE SELT
P·B ST GEN
10K
47μ
1000P
1800
1300
56K
100P
5P
0.22
0.01
1200



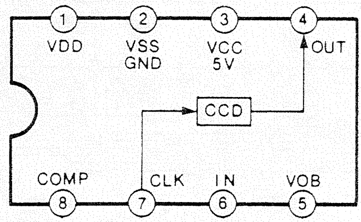
IC8001 VCR0284-1

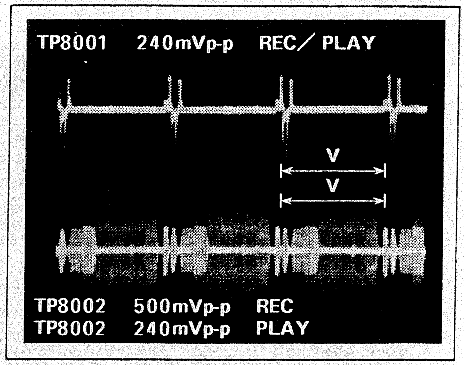

M52056FP
DIGITAL M.M.
ROTARY
SUB BM
FSI
MMV
VCXO
BF
90 DEG
CPS CPN DET
REC APC DET
PB APC DET
SIDE LOCK DET
BST ERR DET
PB OUT KILLER
5dB
AFC DET
SNS
APC PC
320fH VCO
SNS
COMB AMP
6dB
BST DOWN
ACC DET
KILLER DET
10dB/5dB
BST UP
ACC AMP
4dB AMP
MAIN BM
PHASE SELT
P-B ST GEN
PB AMP
REC OUT KILLER
10K
1800
0.022
47µ
1000P
1800
15K
10K
10K
1300
56K
5P
100P
27K
22K
22K
0.01
270P
10K
0.01
0.22
0.01
470P
0.01
0.01
0.01
0.01
0.01
0.01
0.01
0.01
0.01
0.01
0.01
0.01
0.01
0.01
1800
2400
1200
10K
1200
1000
1000
8200
1000

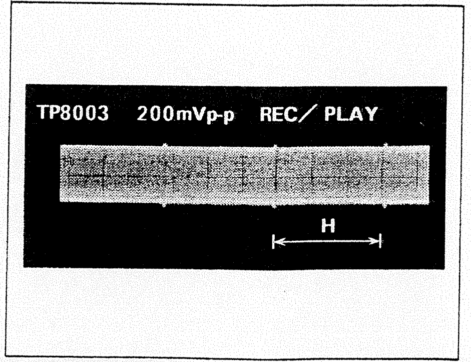
IC8002 AN3495K

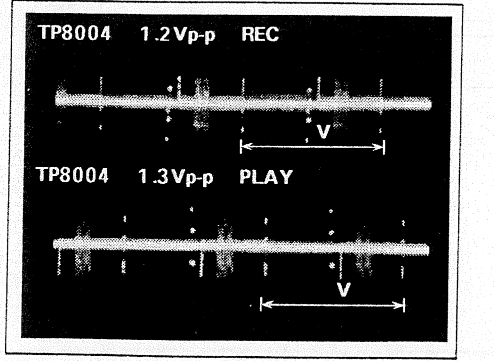

DET
DOP DET
DO
SP/ELP
SP
Ka
Kd
Kd
LIM
LPF
DET3
CORR DET
−4.1dB
+4.1dB
−3 dB
−8.4dB
0dB
YEQ
−29.6dB
−22 dB
−33 dB
X.CTL
CEQ
−20.8dB
−0.8dB
LIM
−2.1dB
−13.2dB
W.EX GCA
−9.5dB
−2.1dB
−13.2dB
−6dB
DET7
VV.DET
EE DET
LIM ADJ

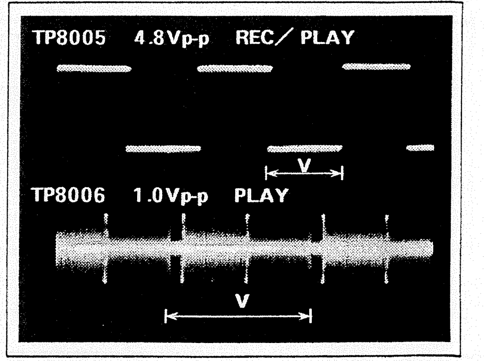
IC8003 MSM6965-3RS


1
2
3
4
VDD
VSS GND
VCC 5V
OUT
CCD
COMP
CLK
IN
VOB
8
7
6
5



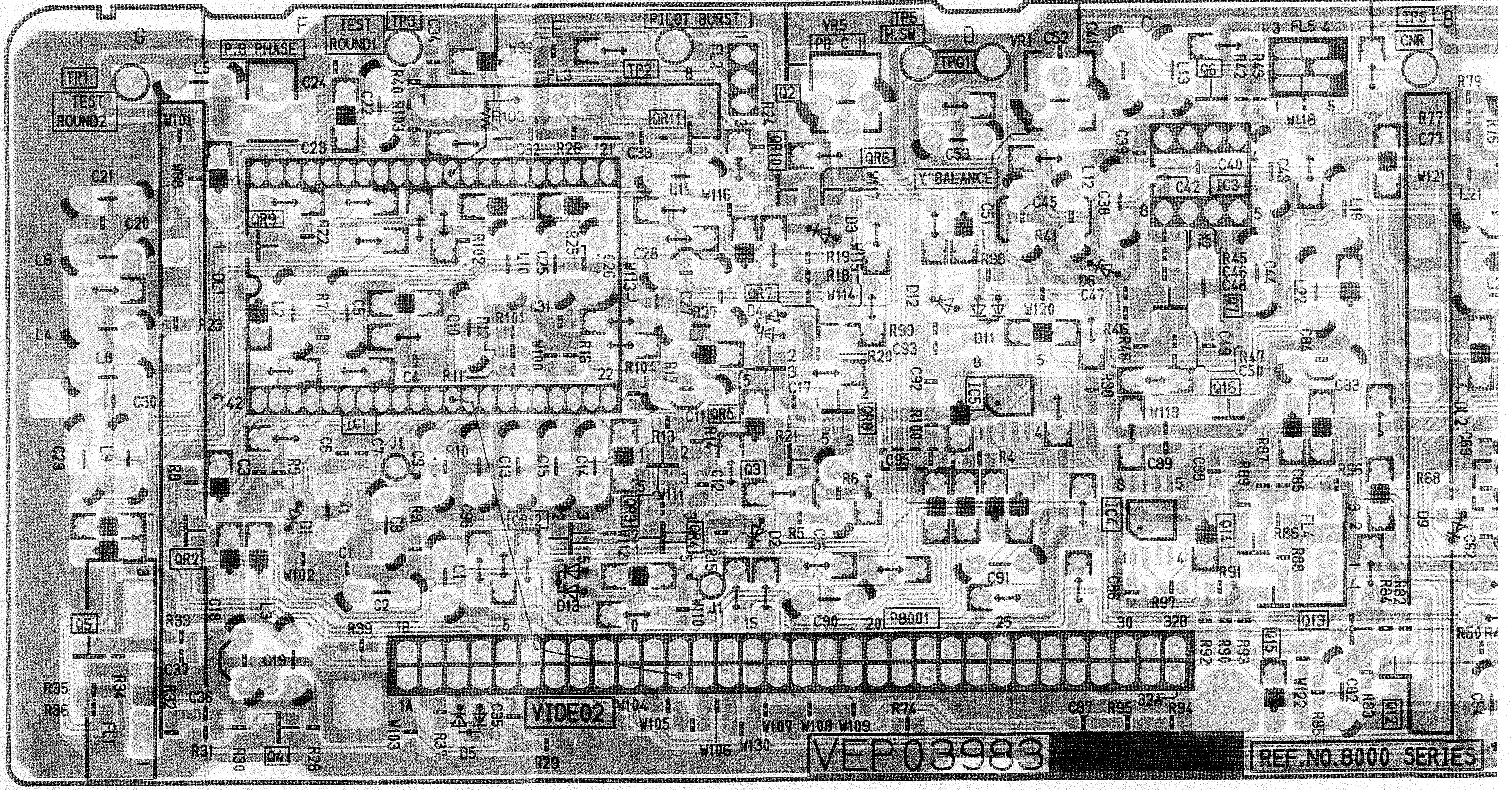






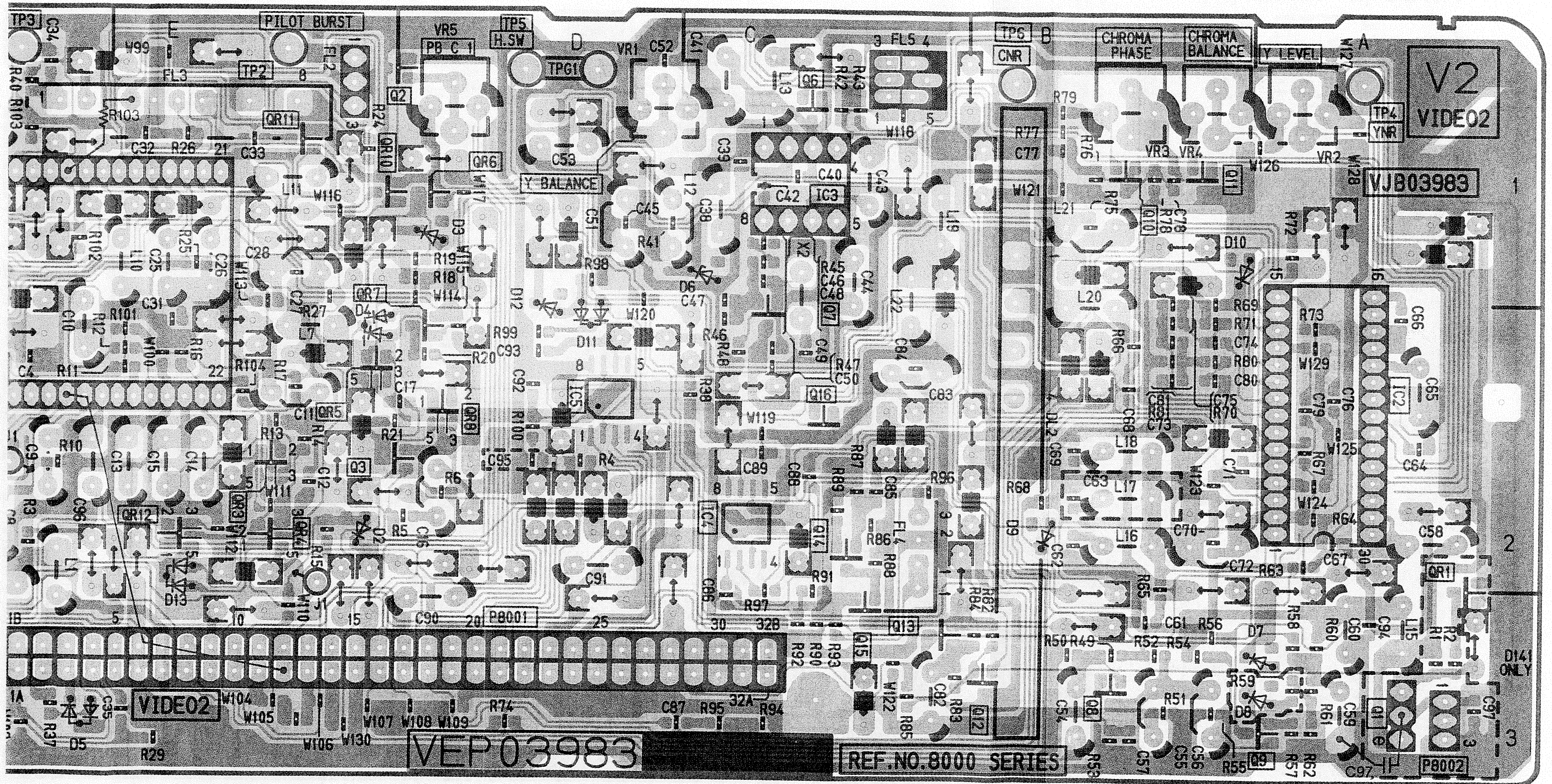
VIDEO (2) C.B.A. (VEP03983A)

VIDEO (2) C.B.A. (VEP03983A)


G
F
E
D
C
B
TP1
TEST ROUND2
P.B PHASE
TEST ROUND1
TP3
PILOT BURST
VR5
PB C 1
TP5
H.SW
TPG1
VR1
FL5
TP6
CNR
FL3
TP2
FL2
QR11
QR10
QR6
Q2
Y BALANCE
IC3
Q6
QR9
QR7
D3
D4
D6
D11
D12
Q7
Q16
IC5
IC1
J1
X1
X2
D1
QR2
QR12
QR3
QR4
QR5
QR8
Q3
D2
D13
IC4
Q14
P8001
Q5
Q4
VIDEO2
D5
Q15
Q13
Q12
D9
FL1
FL4
DL1
DL2
W101
W98
W99
W116
W117
W113
W114
W115
W118
W119
W120
W121
W102
W100
W111
W110
W103
W104
W105
W106
W107
W108
W109
W122
W130
L2
L3
L4
L5
L6
L7
L8
L9
L10
L11
L12
L13
L19
L21
L22
R74
R94
R95
C87
C90
C91
1A
1B
32A
32B
VEP03983
REF.NO.8000 SERIES

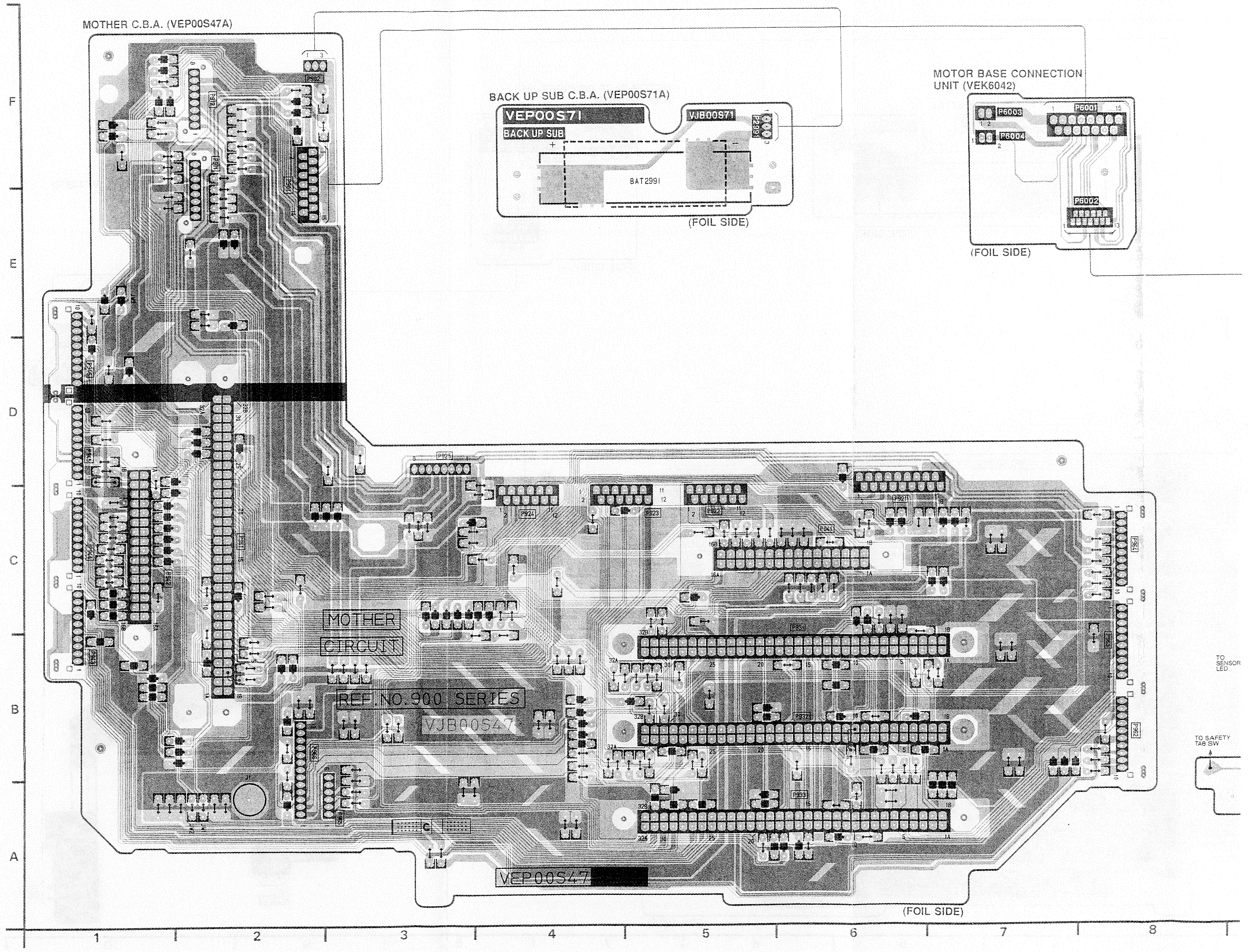
)

A)

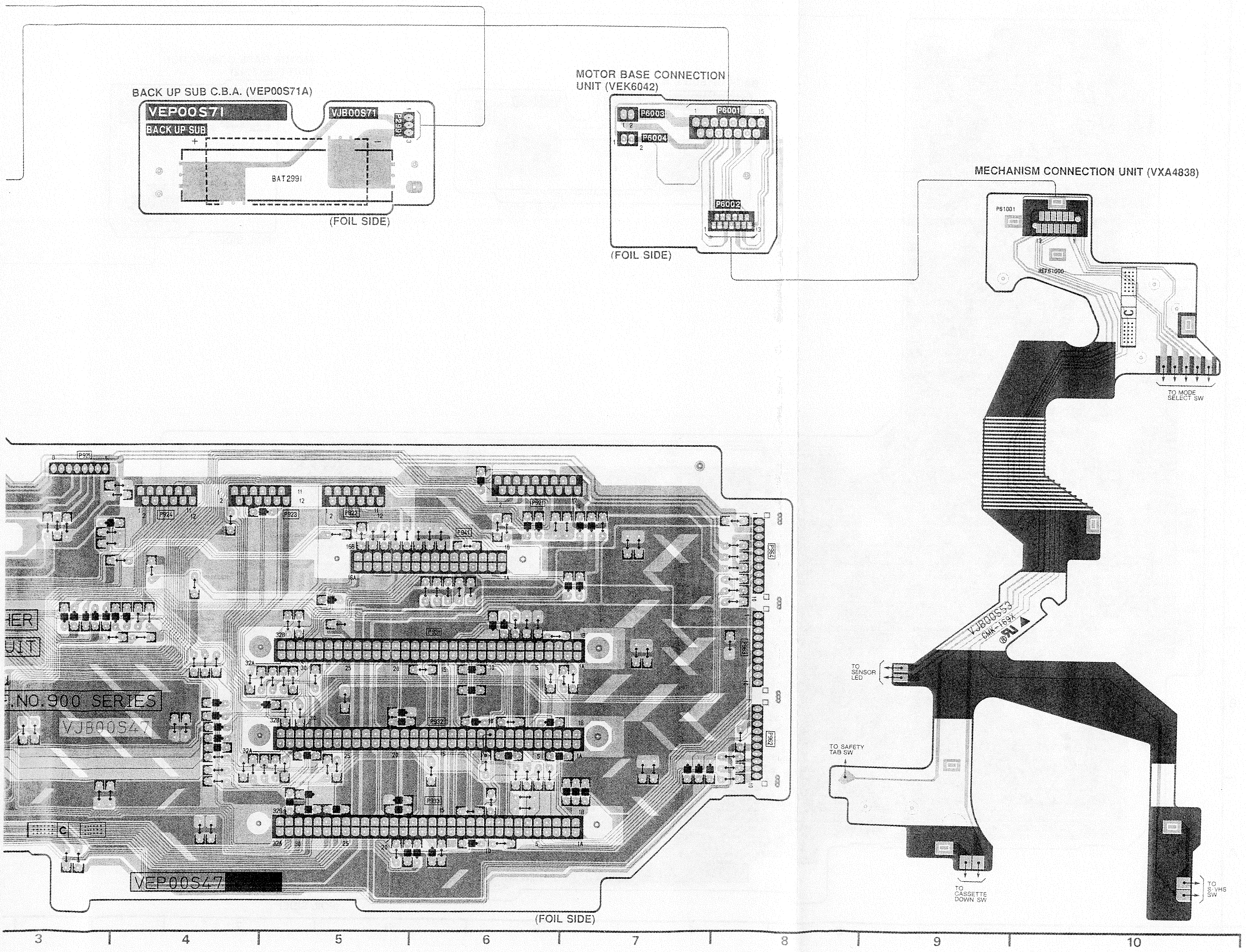

TP3
PILOT BURST
TP2
QR11
VR5
PB C 1
TP5
H.SW
TPG1
VR1
FLS
TP6
CNR
CHROMA PHASE
CHROMA BALANCE
Y LEVEL
V2
VIDEO2
TP4
YNR
VJB03983
Y BALANCE
IC3
IC5
IC4
IC1
IC2
QR1
P8001
P8002
VIDEO2
VEP03983
REF.NO.8000 SERIES
D141 ONLY
A
B
C
D
E
1
2
3

(FOIL SIDE)

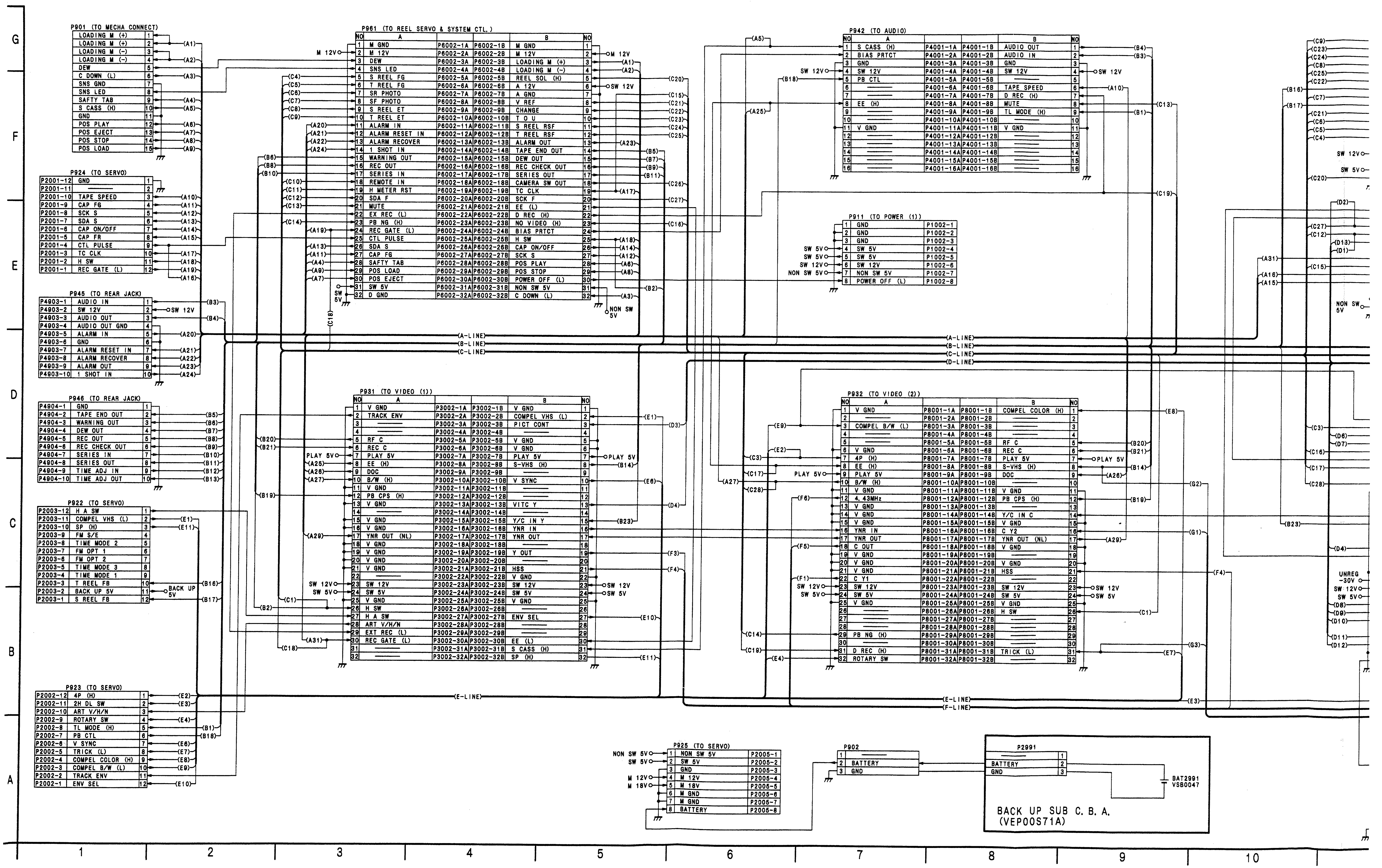
MOTHER C.B.A. (VEP00S47A), BACK UP SUB C.B.A. (VEP00S71A), MORTOR BASE CONNECTION UNIT (VEK6042) AN

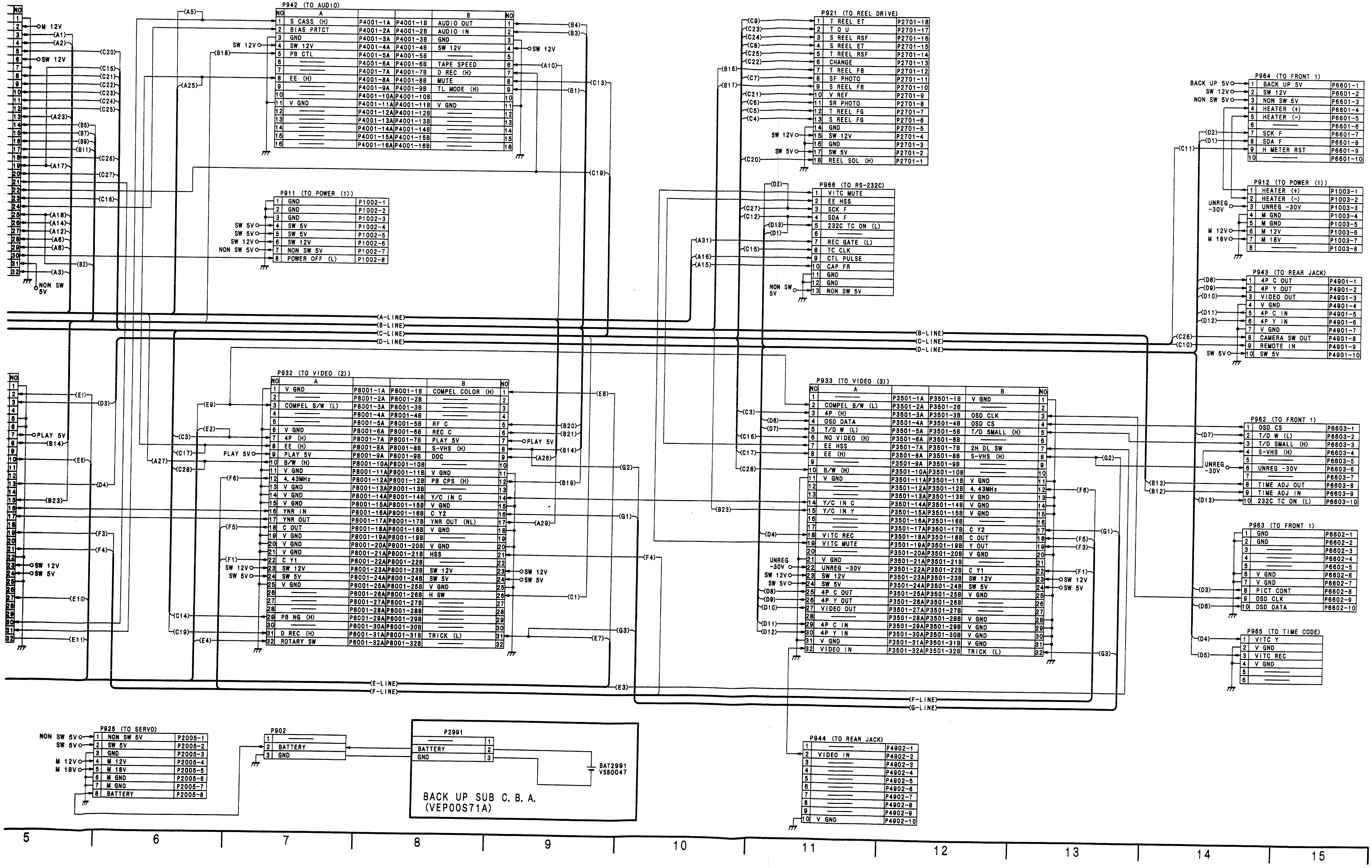

MOTHER C.B.A. (VEP00S47A)
BACK UP SUB C.B.A. (VEP00S71A)
VEP00S71
BACK UP SUB
VJB00S71
P2991
BAT2991
(FOIL SIDE)
MOTOR BASE CONNECTION UNIT (VEK6042)
P6003
P6001
P6004
P6002
(FOIL SIDE)
P925
P924
P923
P922
P921
P941
P931
P932
P933
MOTHER CIRCUIT
REF.NO.900 SERIES
VJB00S47
VEP00S47
(FOIL SIDE)
TO SENSOR LED
TO SAFETY TAB SW
F
E
D
C
B
A
1
2
3
4
5
6
7
8

CK UP SUB C.B.A. (VEP00S71A), MORTOR BASE CONNECTION UNIT (VEK6042) AND MECHANISM CONNECTION UNIT (VXA4838)

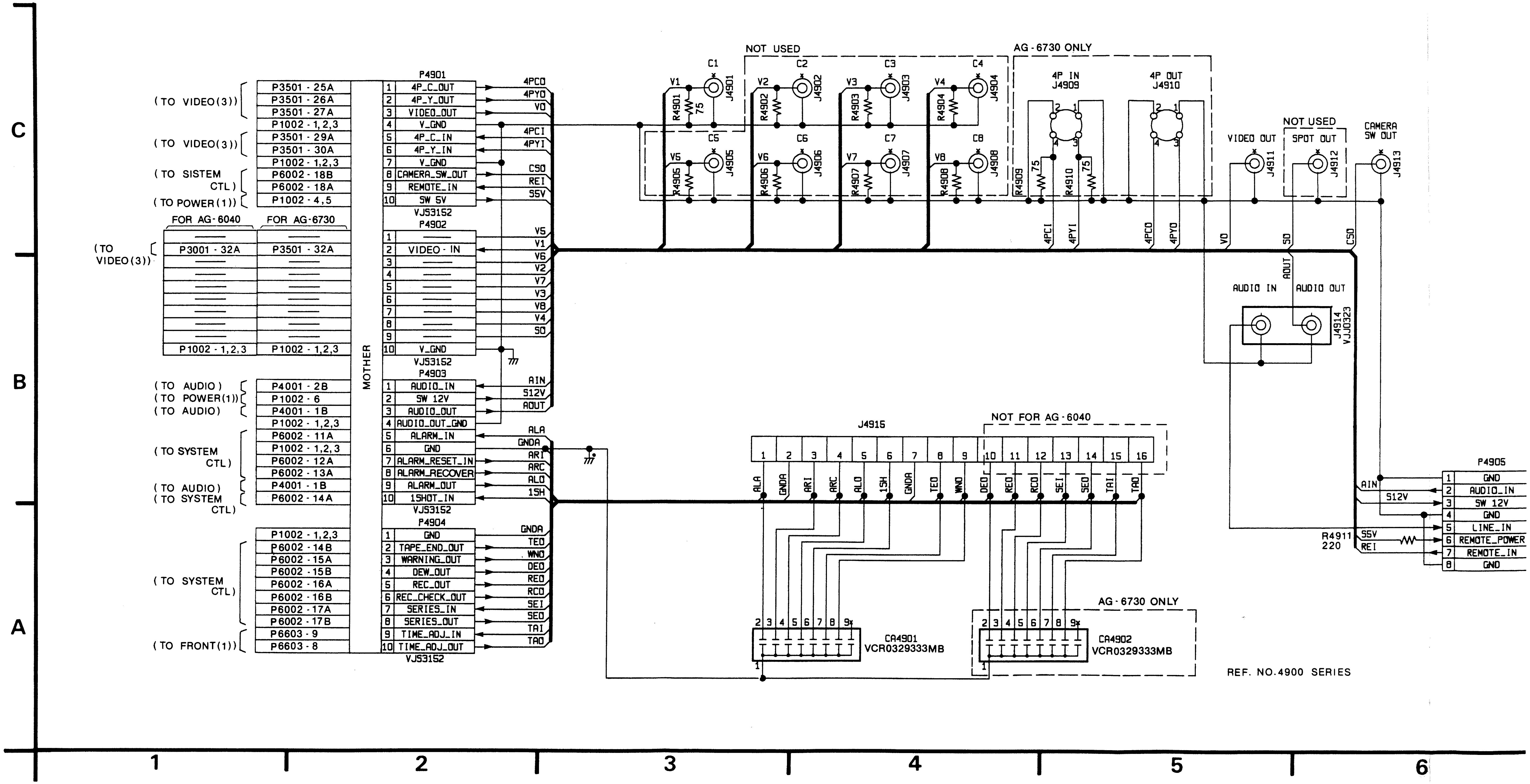

BACK UP SUB C.B.A. (VEP00S71A)
VEP00S71
BACK UP SUB
VJB00S71
P2991
BAT2991
(FOIL SIDE)
MOTOR BASE CONNECTION UNIT (VEK6042)
P6003
P6004
P6001
P6002
(FOIL SIDE)
MECHANISM CONNECTION UNIT (VXA4838)
P61001
REF61000
TO MODE SELECT SW
VJB00S53
CMK-169X
TO SENSOR LED
TO SAFETY TAB SW
TO CASSETTE DOWN SW
TO S-VHS SW
P925
P924
P923
P922
P921
P941
P931
P932
P933
HER
UIT
NO.900 SERIES
VJB00S47
VEP00S47
(FOIL SIDE)
3
4
5
6
7
8
9
10

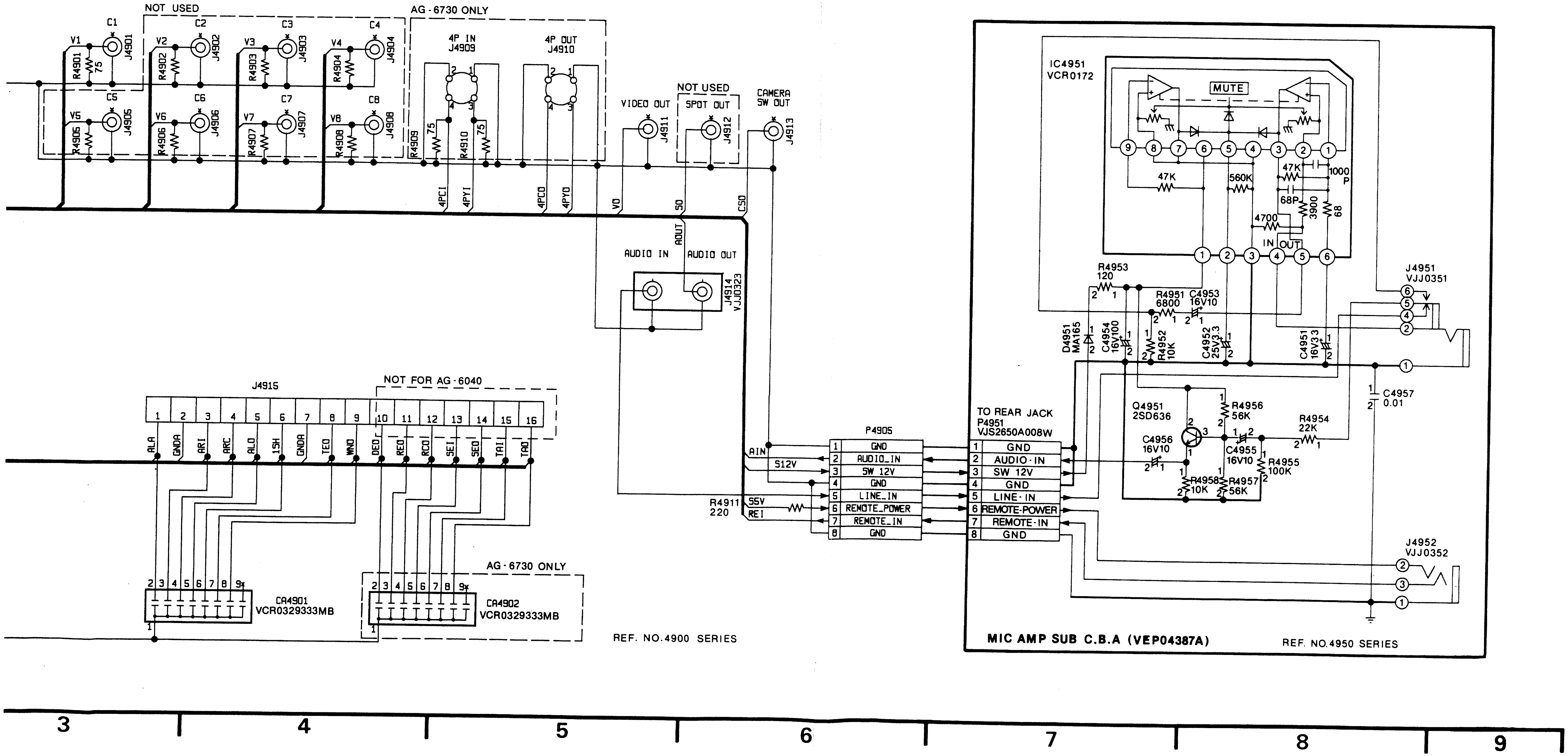
MOTHER SCHEMATIC DIAGRAM


P901 (TO MECHA CONNECT)
P924 (TO SERVO)
P945 (TO REAR JACK)
P946 (TO REAR JACK)
P922 (TO SERVO)
P923 (TO SERVO)
P961 (TO REEL SERVO & SYSTEM CTL.)
P931 (TO VIDEO (1))
P942 (TO AUDIO)
P911 (TO POWER (1))
P932 (TO VIDEO (2))
P925 (TO SERVO)
P902
P2991
BATTERY
GND
BAT2991
VSB0047
BACK UP SUB C. B. A.
(VEP00S71A)
A-LINE
B-LINE
C-LINE
D-LINE
E-LINE
F-LINE
M 12V
SW 12V
SW 5V
NON SW 5V
PLAY 5V
BACK UP 5V
M 18V
UNREG -30V
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

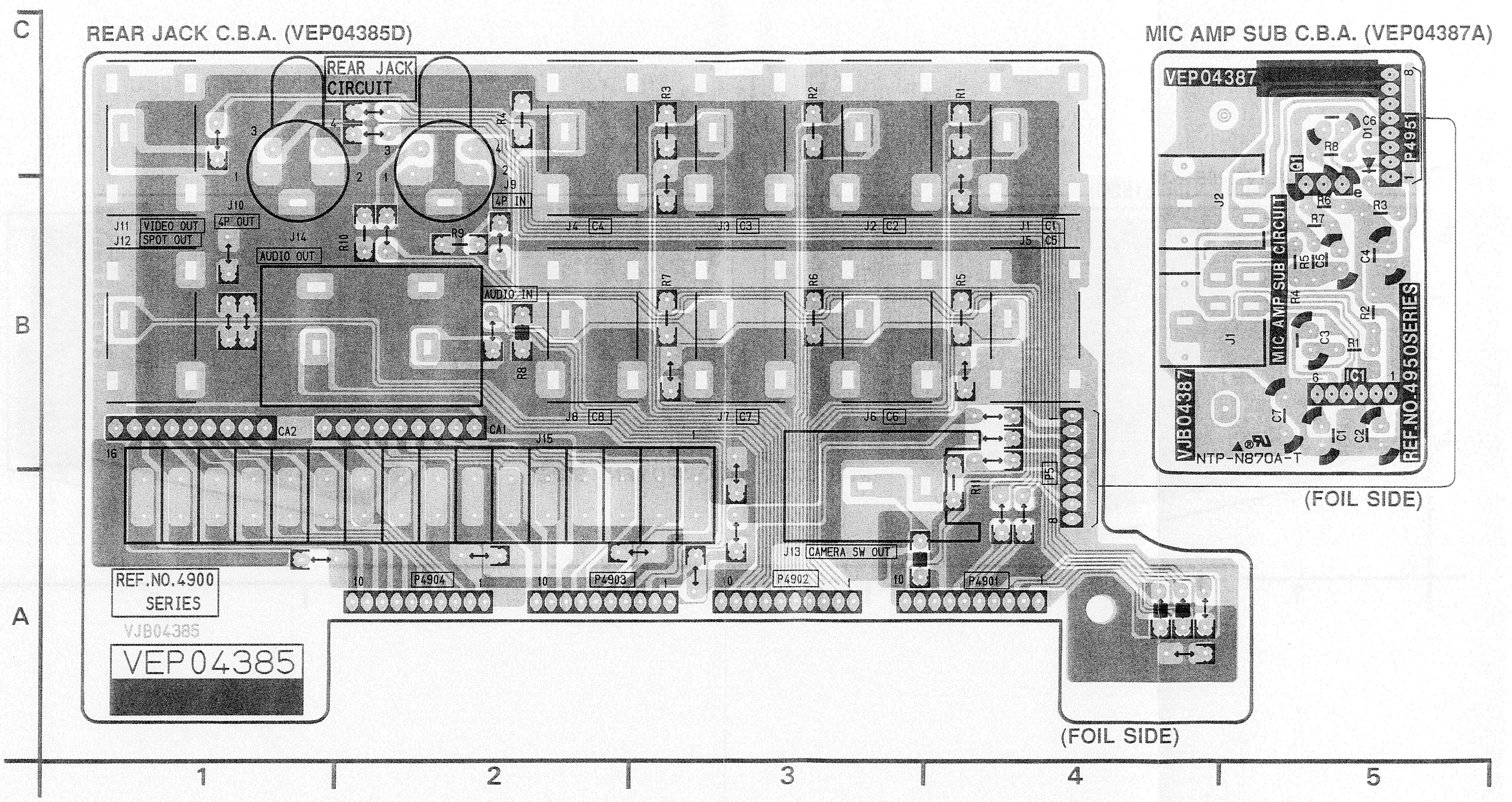

P942 (TO AUDIO)
P921 (TO REEL DRIVE)
P964 (TO FRONT 1)
P911 (TO POWER (1))
P966 (TO RS-232C)
P912 (TO POWER (1))
P943 (TO REAR JACK)
P932 (TO VIDEO (2))
P933 (TO VIDEO (3))
P962 (TO FRONT 1)
P963 (TO FRONT 1)
P965 (TO TIME CODE)
P925 (TO SERVO)
P902
P2991
P944 (TO REAR JACK)
A-LINE
B-LINE
C-LINE
D-LINE
E-LINE
F-LINE
G-LINE
BAT2991
VSB0047
BACK UP SUB C. B. A.
(VEP00S71A)
5
6
7
8
9
10
11
12
13
14
15

REAR JACK SCHEMATIC DIAGRAM


C
B
A
1
2
3
4
5
6
(TO VIDEO(3))
(TO VIDEO(3))
(TO SISTEM CTL)
(TO POWER(1))
P3501 - 25A
P3501 - 26A
P3501 - 27A
P1002 - 1,2,3
P3501 - 29A
P3501 - 30A
P1002 - 1,2,3
P6002 - 18B
P6002 - 18A
P1002 - 4,5
P4901
1 4P_C_OUT
2 4P_Y_OUT
3 VIDEO_OUT
4 V_GND
5 4P_C_IN
6 4P_Y_IN
7 V_GND
8 CAMERA_SW_OUT
9 REMOTE_IN
10 SW 5V
VJ53152
4PCO
4PYO
VO
4PCI
4PYI
CSO
REI
S5V
FOR AG-6040
FOR AG-6730
(TO VIDEO(3))
P3001 - 32A
P3501 - 32A
P1002 - 1,2,3
P1002 - 1,2,3
P4902
1
2 VIDEO - IN
3
4
5
6
7
8
9
10 V_GND
VJ53152
V5
V1
V6
V2
V7
V3
V8
V4
SO
MOTHER
(TO AUDIO)
(TO POWER(1))
(TO AUDIO)
P4001 - 2B
P1002 - 6
P4001 - 1B
P1002 - 1,2,3
P4903
1 AUDIO_IN
2 SW 12V
3 AUDIO_OUT
4 AUDIO_OUT_GND
5 ALARM_IN
6 GND
7 ALARM_RESET_IN
8 ALARM_RECOVER
9 ALARM_OUT
10 1SHOT_IN
VJ53152
AIN
S12V
AOUT
ALA
GNDA
ARI
ARC
ALO
1SH
(TO SYSTEM CTL)
(TO AUDIO)
(TO SYSTEM CTL)
P6002 - 11A
P1002 - 1,2,3
P6002 - 12A
P6002 - 13A
P4001 - 1B
P6002 - 14A
(TO SYSTEM CTL)
(TO FRONT(1))
P1002 - 1,2,3
P6002 - 14B
P6002 - 15A
P6002 - 15B
P6002 - 16A
P6002 - 16B
P6002 - 17A
P6002 - 17B
P6603 - 9
P6603 - 8
P4904
1 GND
2 TAPE_END_OUT
3 WARNING_OUT
4 DEW_OUT
5 REC_OUT
6 REC_CHECK_OUT
7 SERIES_IN
8 SERIES_OUT
9 TIME_ADJ_IN
10 TIME_ADJ_OUT
VJ53152
GNDA
TEO
WNO
DEO
REO
RCO
SEI
SEO
TAI
TAO
NOT USED
AG-6730 ONLY
C1
C2
C3
C4
C5
C6
C7
C8
V1
V2
V3
V4
V5
V6
V7
V8
R4901
R4902
R4903
R4904
R4905
R4906
R4907
R4908
75
J4901
J4902
J4903
J4904
J4905
J4906
J4907
J4908
4P IN
J4909
4P OUT
J4910
R4909
R4910
75
75
4PCI
4PYI
4PCO
4PYO
VO
SO
CSO
NOT USED
VIDEO OUT
SPOT OUT
CAMERA SW OUT
J4911
J4912
J4913
AOUT
AUDIO IN
AUDIO OUT
J4914
VJJ0323
J4915
NOT FOR AG-6040
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
ALA
GNDA
ARI
ARC
ALO
1SH
GNDA
TEO
WNO
DEO
REO
RCO
SEI
SEO
TAI
TAO
AG-6730 ONLY
2 3 4 5 6 7 8 9
1
CA4901
VCR0329333MB
2 3 4 5 6 7 8 9
1
CA4902
VCR0329333MB
P4905
1 GND
2 AUDIO_IN
3 SW 12V
4 GND
5 LINE_IN
6 REMOTE_POWER
7 REMOTE_IN
8 GND
AIN
S12V
S5V
REI
R4911
220
REF. NO.4900 SERIES


NOT USED
AG-6730 ONLY
C1
C2
C3
C4
V1
V2
V3
V4
R4901
75
J4901
R4902
J4902
R4903
J4903
R4904
J4904
C5
C6
C7
C8
V5
V6
V7
V8
R4905
J4905
R4906
J4906
R4907
J4907
R4908
J4908
4P IN
J4909
4P OUT
J4910
R4909
75
R4910
75
4PCI
4PYI
4PCO
4PYO
VIDEO OUT
J4911
NOT USED
SPOT OUT
J4912
CAMERA
SW OUT
J4913
VO
SO
CSO
AOUT
AUDIO IN
AUDIO OUT
J4914
VJJ0323
J4915
NOT FOR AG-6040
ALA
GNDA
ARI
ARC
ALO
15H
GNDA
TEO
WNO
DEO
REO
RCOI
SEI
SEO
TAI
TAO
CA4901
VCR0329333MB
CA4902
VCR0329333MB
AG-6730 ONLY
AIN
S12V
R4911
220
S5V
REI
P4905
GND
AUDIO_IN
SW 12V
GND
LINE_IN
REMOTE_POWER
REMOTE_IN
GND
REF. NO.4900 SERIES
IC4951
VCR0172
MUTE
47K
560K
47K
1000
P
68P
3900
68
4700
IN
OUT
R4953
120
R4951
6800
C4953
16V10
D4951
MA165
C4954
16V100
R4952
10K
C4952
25V3.3
C4951
16V33
J4951
VJJ0351
C4957
0.01
TO REAR JACK
P4951
VJS2650A008W
GND
AUDIO·IN
SW 12V
GND
LINE·IN
REMOTE·POWER
REMOTE·IN
GND
Q4951
2SD636
R4956
56K
R4954
22K
C4956
16V10
C4955
16V10
R4955
100K
R4958
10K
R4957
56K
J4952
VJJ0352
MIC AMP SUB C.B.A (VEP04387A)
REF. NO.4950 SERIES
3
4
5
6
7
8
9

REAR JACK C.B.A. (VEP04385D) AND MIC AMP SUB C.B.A. (VEP04387A)



REAR JACK C.B.A. (VEP04385D)

MIC AMP SUB C.B.A. (VEP04387A)

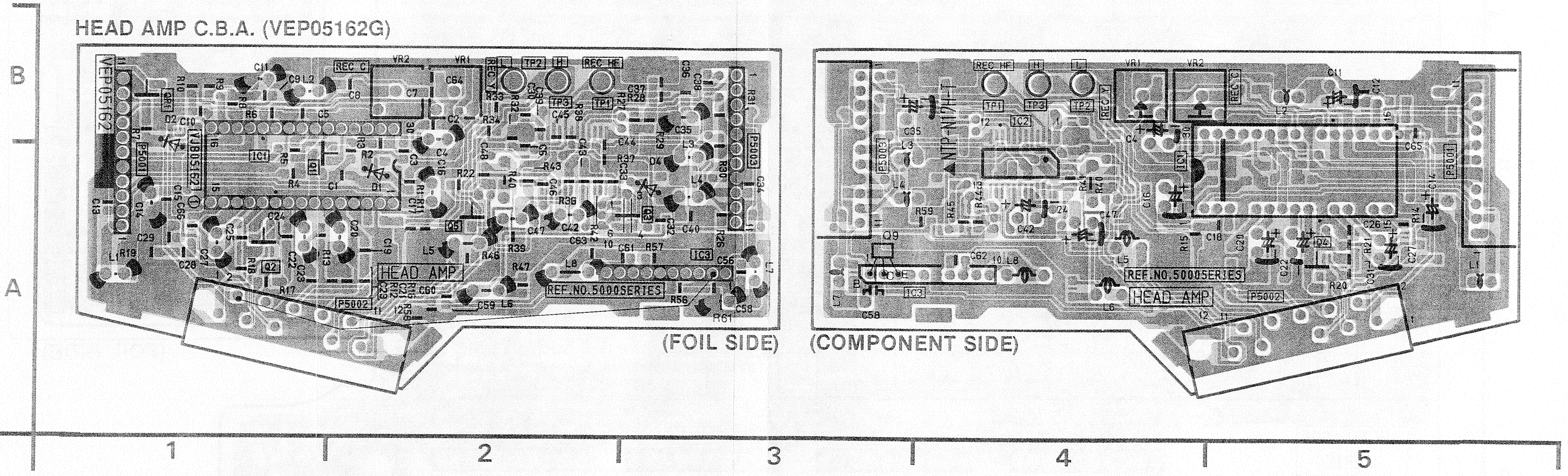
(FOIL SIDE)

(FOIL SIDE)

C
B
A
1
2
3
4
5
REAR JACK CIRCUIT
J9
4P IN
J10
4P OUT
J11 VIDEO OUT
J12 SPOT OUT
J14
AUDIO OUT
AUDIO IN
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
J1 C1
J5 C5
J2 C2
J3 C3
J4 C4
J6 C6
J7 C7
J8 C8
CA1
CA2
J15
J13 CAMERA SW OUT
P4901
P4902
P4903
P4904
P5
REF.NO.4900 SERIES
VJB04385
VEP04385
VEP04387
P4951
C6
D1
R8
Q1
R6
R7
R3
J2
MIC AMP SUB CIRCUIT
R5
C5
C4
R4
R2
J1
C3
R1
IC1
C7
C1
C2
VJB04387
NTP-N870A-T
REF.NO.4950SERIES

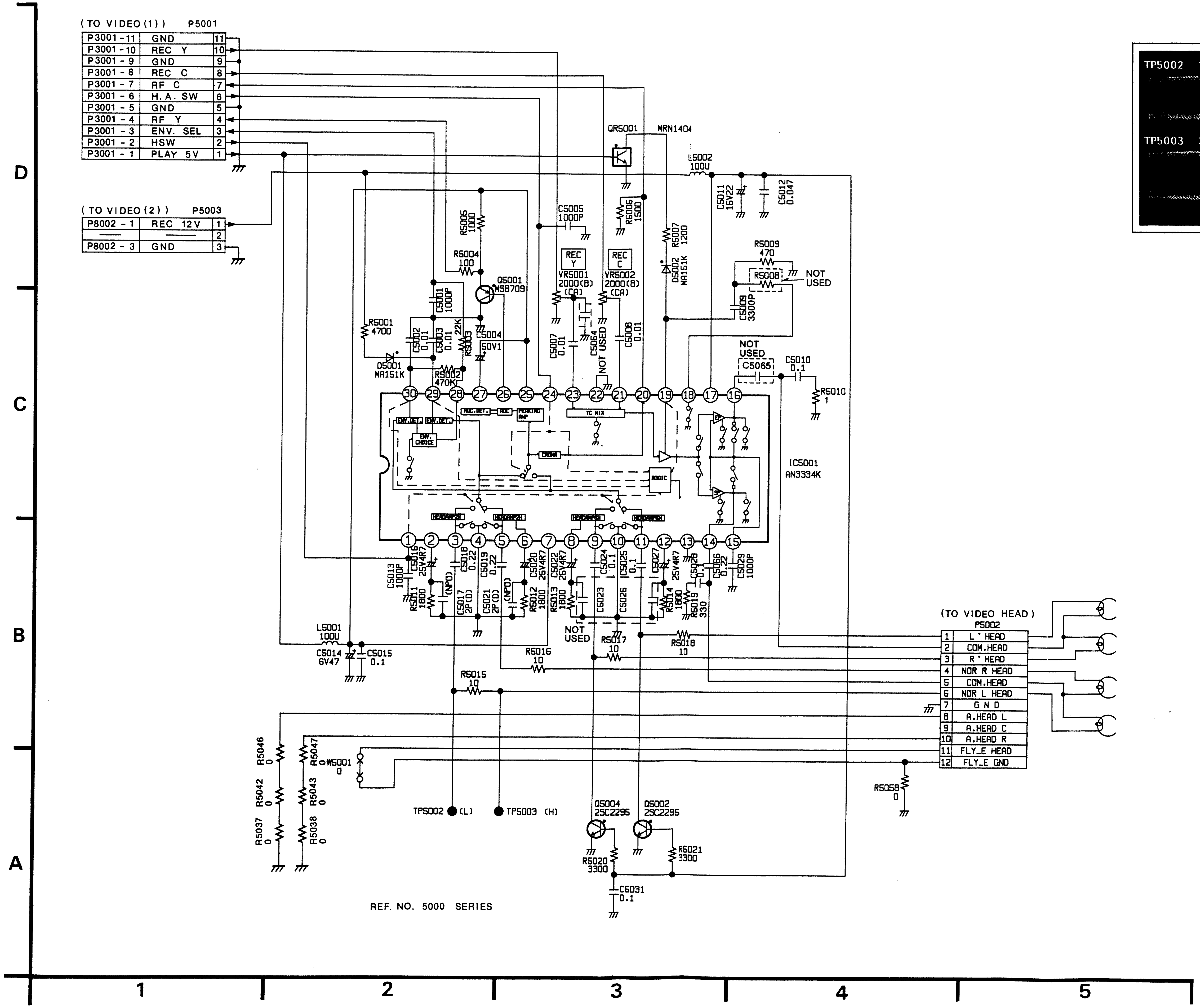
HEAD AMP C.B.A. (VEP05162G)

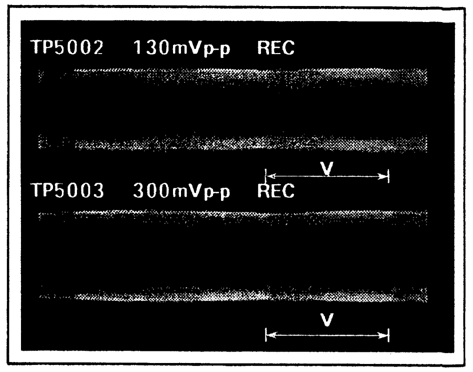
HEAD AMP C.B.A. (VEP05162G)


B
A
1
2
3
4
5
VEP05162
IC1
IC2
IC3
P5001
P5002
P5003
VR1
VR2
REC C
REC Y
REC HF
TP1
TP2
TP3
H
L
Q1
Q2
Q3
Q4
Q5
Q9
HEAD AMP
REF.NO.5000SERIES
NTP-N17H-T
VJB05162

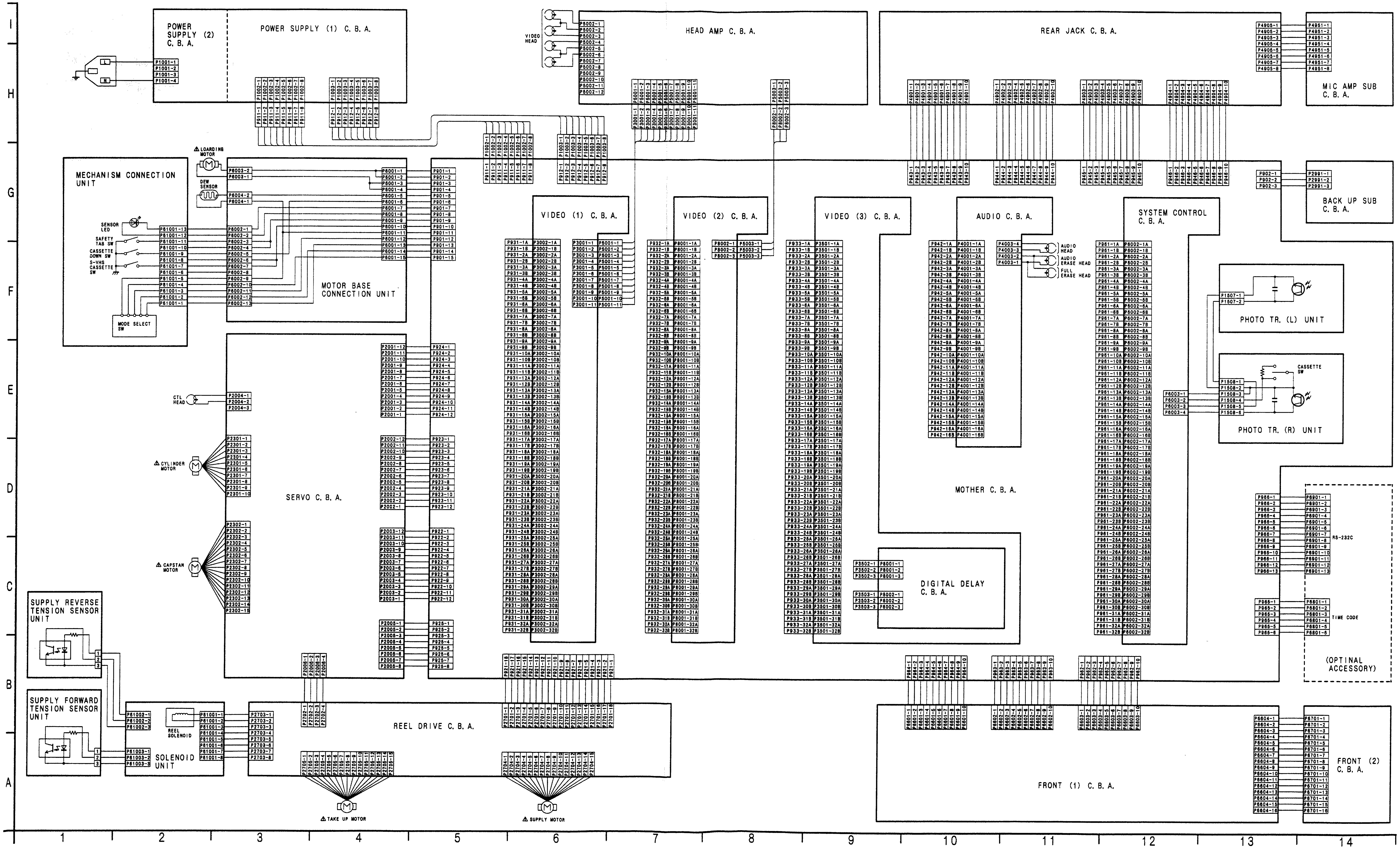
(FOIL SIDE) (COMPONENT SIDE)

HEAD AMP SCHEMATIC DIAGRAM


(TO VIDEO (1)) P5001
P3001-11 GND 11
P3001-10 REC Y 10
P3001-9 GND 9
P3001-8 REC C 8
P3001-7 RF C 7
P3001-6 H.A. SW 6
P3001-5 GND 5
P3001-4 RF Y 4
P3001-3 ENV. SEL 3
P3001-2 HSW 2
P3001-1 PLAY 5V 1
(TO VIDEO (2)) P5003
P8002-1 REC 12V 1
2
P8002-3 GND 3
QR5001 MRN1404
L5002 100U
C5011 16V22
C5012 0.047
C5005 1000P
R5006 1500
R5007 1200
D5002 MA151K
R5005 1000
R5004 100
Q5001 M58709
C5001 1000P
R5001 4700
C5002 0.01
C5003 0.01
R5003 22K
C5004 50V1
D5001 MA151K
R5002 470K
REC Y
VR5001 2000(B) (CA)
REC C
VR5002 2000(B) (CA)
C5007 0.01
C5064 NOT USED
C5008 0.01
R5009 470
R5008 NOT USED
C5009 3300P
NOT USED C5065
C5010 0.1
R5010 1
ENV.DET.
ENV. CHOICE
YC MIX
LOGIC
IC5001 AN3334K
C5013 1000P
C5016 25V4R7
R5011 1800
C5017 2P(D)
C5018 0.22
C5019 0.22
C5021 2P(D)
R5012 1800
C5020 25V4R7
C5022 25V4R7
R5013 1800
C5023
C5024 0.1
C5025 0.1
C5026
C5027 25V4R7
R5014 1800
C5028 0.1
R5019 330
C5066
C5029 1000P
NOT USED
L5001 100U
C5014 6V47
C5015 0.1
R5016 10
R5015 10
R5017 10
R5018 10
(TO VIDEO HEAD) P5002
1 L' HEAD
2 COM.HEAD
3 R' HEAD
4 NOR R HEAD
5 COM.HEAD
6 NOR L HEAD
7 GND
8 A.HEAD L
9 A.HEAD C
10 A.HEAD R
11 FLY_E HEAD
12 FLY_E GND
R5046 0
R5047 0
W5001 0
R5042 0
R5043 0
R5037 0
R5038 0
TP5002 (L)
TP5003 (H)
Q5004 2SC2295
Q5002 2SC2295
R5020 3300
R5021 3300
C5031 0.1
R5058 0
REF. NO. 5000 SERIES
A
B
C
D
1
2
3
4
5



INTERCONNECTION SCHEMATIC DIAGRAM



POWER SUPPLY (2) C. B. A.
POWER SUPPLY (1) C. B. A.
VIDEO HEAD
HEAD AMP C. B. A.
REAR JACK C. B. A.
MIC AMP SUB C. B. A.
BACK UP SUB C. B. A.
MECHANISM CONNECTION UNIT
LOADING MOTOR
DEW SENSOR
SENSOR LED
SAFETY TAB SW
CASSETTE DOWN SW
S-VHS CASSETTE SW
MODE SELECT SW
MOTOR BASE CONNECTION UNIT
VIDEO (1) C. B. A.
VIDEO (2) C. B. A.
VIDEO (3) C. B. A.
AUDIO C. B. A.
AUDIO HEAD
AUDIO ERASE HEAD
FULL ERASE HEAD
SYSTEM CONTROL C. B. A.
PHOTO TR. (L) UNIT
CASSETTE SW
PHOTO TR. (R) UNIT
CTL HEAD
CYLINDER MOTOR
CAPSTAN MOTOR
SERVO C. B. A.
MOTHER C. B. A.
DIGITAL DELAY C. B. A.
RS-232C
TIME CODE
(OPTINAL ACCESSORY)
SUPPLY REVERSE TENSION SENSOR UNIT
SUPPLY FORWARD TENSION SENSOR UNIT
REEL SOLENOID
SOLENOID UNIT
REEL DRIVE C. B. A.
TAKE UP MOTOR
SUPPLY MOTOR
FRONT (1) C. B. A.
FRONT (2) C. B. A.
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14

Section 8

EXPLODED VIEWS
AND
REPLACEMENT PARTS LISTS

CONTENTS

SERVICING FIXTURES & TOOLS LIST PARTS-2

EXPLODED VIEWS PARTS-3

1. Chassis Parts Section PARTS-3
2. Moving Mechanism Section PARTS-5
3. Cassette Compartment Section PARTS-7
4. Chassis & Frame Section PARTS-8
5. Casing Parts Section PARTS-10
6. Packing Parts Section PARTS-11

MECHANICAL REPLACEMENT PARTS LIST PARTS-4

1. Chassis Parts Section PARTS-4
2. Moving Mechanism Section PARTS-6
3. Cassette Compartment Section PARTS-6
4. Chassis & Frame Section PARTS-9
5. Casing Parts Section PARTS-9
6. Packing Parts Section PARTS-12

ELECTRICAL REPLACEMENT PARTS LIST PARTS-13

NOTES

1. ● Be sure to make your orders of replacement parts according to this list.
   ●"<R>" in Remark column indicates recommended parts.
   ●"<M>" in Remark column indicates needed in the periodical maintenance.
2. IMPORTANT SAFETY NOTICE
   Components identified by "<!>" have special characteristics important for safety.
   When replacing any of these components, use only the original ones.
   Meaning of symbol "<!>" on this parts list is exactly the same as symbol ⚠on Schematic and Circuit Board Diagrams.
3. Unless otherwise specified ;
   All resistors are in (Ω), K=1,000Ω, M=1,000kΩ.
   All capacitors are in (F), U=10^{-6} F, P=10^{-12} F.
4. ITEM NUMBERS WITH CAPITAL LETER E
   Item numbers with capital leter E (Example:E1, E2,...) in Ref.No. column mean that the parts are listed with the E item numbers in the exploded views.
5. The main assembled parts are shown below C.B.A. marked with "■" .
6. When ordering parts, use parts No. only form Part No. column.
7. Printed circuit board assembly with mark (NLA) is no longer available after discontinuation of the product.
8. Abbreviations for parts ;

-- NAME --	-- DESCRIPTION --
C.CAPACITOR	CERAMIC CAPACITOR
C.CAPACITOR CH	CERAMIC CHIP CAPACITOR
E.CAPACITOR	ELECTROLYTIC CAPACITOR
G.CAPACITOR	GLASS CAPACITOR
M.CAPACITOR	MICA CAPACITOR
P.CAPACITOR	PLASTIC FILM CAPACITOR
S.CAPACITOR	SEMI-CONDUCTOR CAPACITOR
T.CAPACITOR	TANTALUM CAPACITOR
TRIMMER	TRIMMER
C.RESISTOR	CARBON RESISTOR
F.RESISTOR	FUSE RESISTOR
M.RESISTOR	METAL OXSIDE RESISTOR
M.RESISTOR CH	METAL OXSIDE CHIP RESISTOR
S.RESISTOR	SOLID RESISTOR
V.RESISTOR	VARIABLE RESISTOR
W.RESISTOR	WIRE WOUND RESISTOR
COMBI. TR-R	TRANSITOR-RESISTOR COMBINATION PARTS
COMBI. R-R	RESISTOR-RESISTOR COMBINATION PARTS
COMBI. C-R-L	CAPACITOR-COIL COMBINATION PARTS
C.B.A.	CIRCUIT BOARD ASSEMBLY

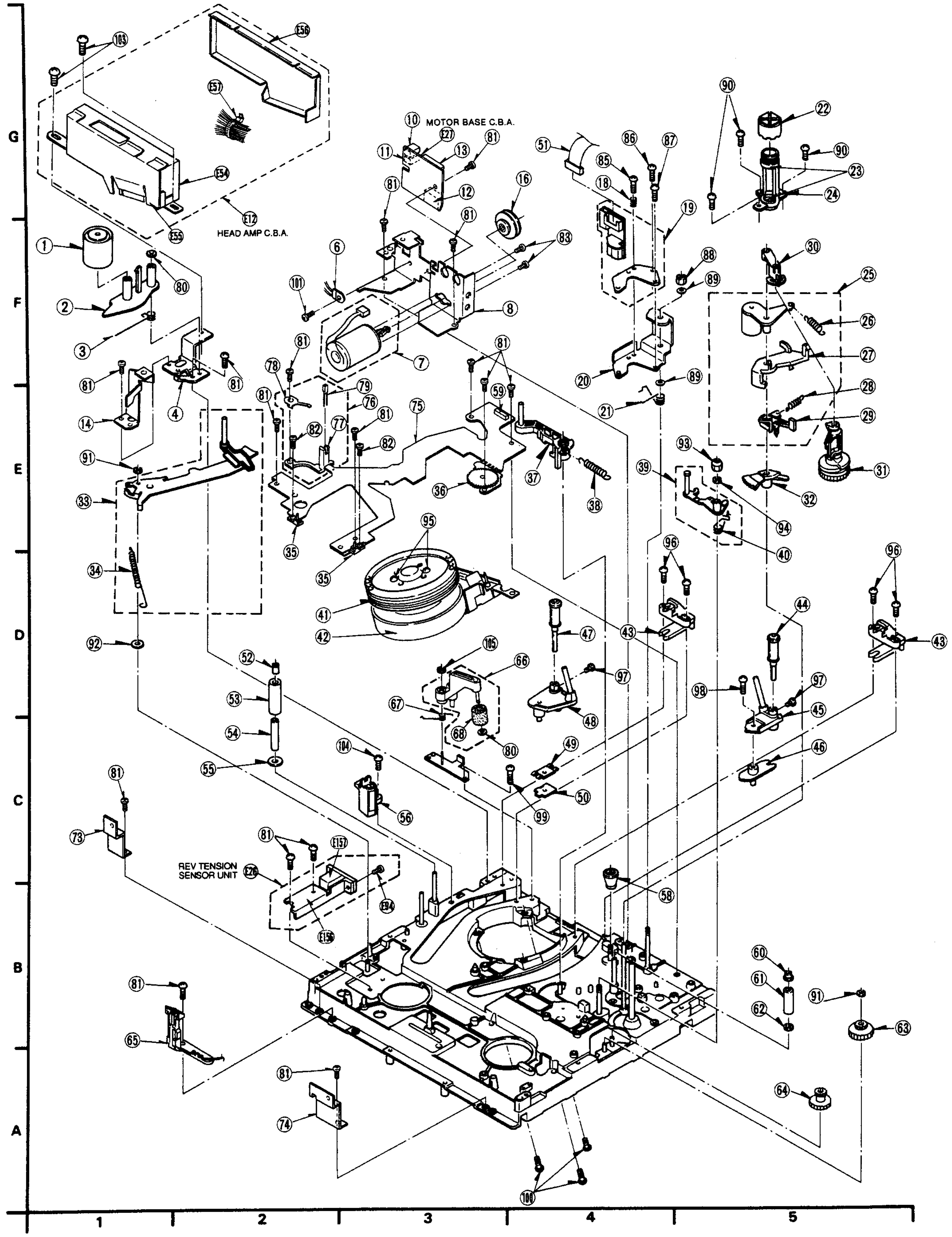
SERVICING FIXTURES & TOOLS LIST

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VFM8180HADH	VHS ALIGNMENT TAPE	1	
		VFK0329	POST ADJ. SCREWDRIVER	1	
		VFK0132	BACK TENSION METER	1	(T2-H7-UM)
			(TENTELOMETER,		
			MADE IN U.S.A.)		
		VFK0191	POST ADJ. PLATE	1	
		VFK0133	DIAL TORQUE GAUGE	1	
		VFK0180	PLASTIC CLAMPER ONLY	1	
		VFK0134	ADAPTOR FOR VFK0133	1	
		VFK0190	REEL TABLE HEIGHT GAUGE	1	
		VFK0236	TENSION POST ADJ. FIXTURE	1	
		VFK0806	TENSION SENSOR ADJ. FIXTURE	1	
		VFK0328	H-POSITION ADJ. SCREWDRIVER	1	
		VFK0330	FINE ADJ. SCREWDRIVER	1	
			(3mm PHI)		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VFK0335	RETAINING RING REMOVER	1	
			(3mm/4mm)		
		VFK0326	HEX.WRENCH SET	1	
		VFK0343	CHECK LIGHT	1	
		MOR265	MOLYTONE GREASE	1	FOR METAL PART
		VFK27	HEAD CLEANING STICK	1	
		VFK0344	POST HEIGHT ADJ. FIXTURE	1	
		VFK0269	L TYPE SCREWDRIVER	1	
		VFK66	FAN TYPE TENSION GAUGE	1	
		VFK0680	S.C.R. GREASE	1	FOR PLASTIC PART
		VFK0827	EXTENDER BOARD (32P)	1	
		VFK0829	EXTENDER BOARD (64P)	1	
		VFK0828	EXTENDER CABLE (8P)	2	
		VFK0685	EXTENDER BOARD	1	

EXPLODED VIEWS

❶ *Chassis Parts Section*

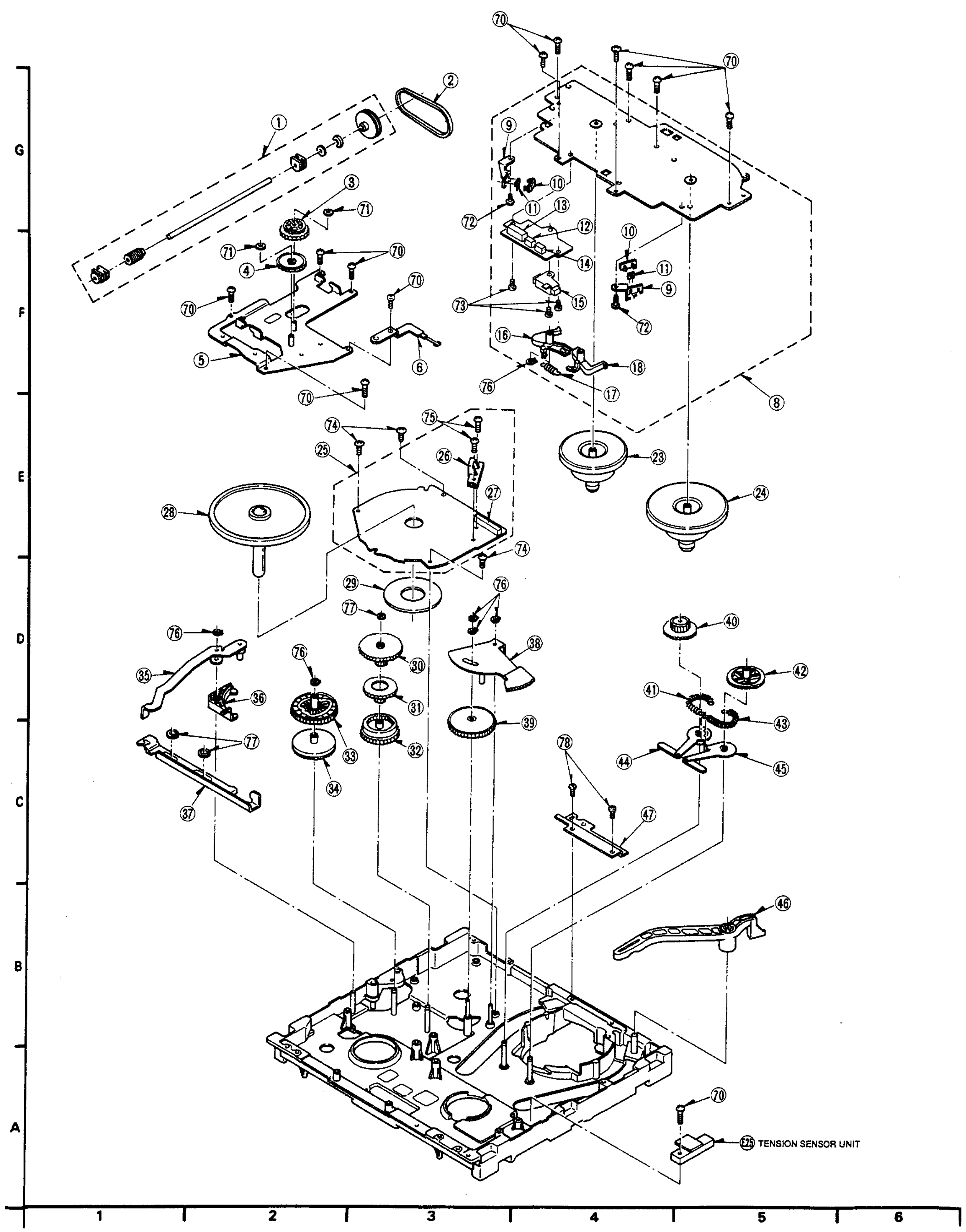


MECHANICAL REPLACEMENT PARTS LIST

1. Chassis Parts Section

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
1-1		VXP1075	IMPEDANCE ROLLER UNIT	1	
1-2		VML2293	IMPEDANCE ROLLER ARM	1	
1-3		VMB1976	IMPEDANCE SPRING	1	
1-4		VMA7982	HEAD AMP ANGLE (L)	1	
1-6		VEK3185	HUMIDITY RESISTOR UNIT	1	<R>
1-7		VEM0360	LOADING MOTOR UNIT	1	<M><R><!>
1-8		VMA8769	MOTOR BASE	1	
1-10		VJP1229G	CONNECTOR (2P)	1	
1-11		VJP1229T	CONNECTOR (2P)	1	
1-12		VJP3106B013	CONNECTOR (13P)	1	
1-13		VJS1493	CONNECTOR (15P)	1	
1-14		VMA8130	IMPEDANS ROLLER SUPPORT ANGLE	1	
1-16		VDP1319	MOTOR PULLEY	1	
1-18		VMB1251	ADJUST SPRING	1	
1-19		VED0186	A/C HEAD (1) UNIT	1	<M><R>
1-20		VXA3649	A/C HEAD BASE UNIT	1	
1-21		VMB1567	A/C HEIGHT SPRING	1	
1-22		VXQ0006	THRUST SCREW UNIT	1	
1-23		VMX1033	OIL SEAL	2	
1-24		VXD0101	HOUSING UNIT	1	
1-25		VXL1902	PRESSURE ROLLER UNIT	1	<M><R>
1-26		VMB1977	PINCH PRESSURE SPRING	1	
1-27		VXL1873	PINCH PRESSURE ARM	1	
1-28		VMB1569	PINCH ARM SPRING	1	
1-29		VML1874	PINCH LIFT ARM	1	
1-30		VMX1353	PINCH CAM ARM	1	
1-31		VDG0577	PINCH CAM	1	
1-32		VDG0651	PULL OUT SECTOR GEAR	1	
1-33		VXL2089	TENSION ARM UNIT	1	
1-34		VMB1975	TENSION SPRING	1	
1-35		VSP0293	CASSETTE DETECT SW	2	
1-36		VSS0257	MODE SWITCH	1	<M><R>
1-37		VXL1857	SUB LOADING ARM (1) UNIT	1	
1-38		VMB1566	SUB POST SPRING	1	
1-39		VXL2074	P5 UNIT	1	
1-40		VMB1554	P5 SPRING	1	
1-41		VEH0458	UPPER CYLINDER UNIT	1	<M><R>
1-42		VEG0989	LOWER CYLINDER UNIT	1	<M><R>
1-43		VMD0910	POST STOPPER	2	
1-44		VXP1094	ROLLER POST (T) UNIT	1	
1-45		VXA3213	INCLINED BASE (T)(1) UNIT	1	
1-46		VXA2687	INCLINED ADJUSTMENT PLATE U	1	
1-47		VXP1093	ROLLER POST (S) UNIT	1	
1-48		VXA3249	INCLINED BASE (S)(2) UNIT	1	
1-49		VMA7029	HOLDER PLATE (S)	1	
1-50		VMA7660	PLATE	1	
1-51		VEE8058	FLEXIBLE CABLE	1	
1-52		VMX1088	UPPER LIMITER	1	
1-53		VDP1304	SUPPLY ROLLER	1	
1-54		VMX1581	P1 COLIAR	1	
1-55		VMX1533	LOWER LIMITER	1	
1-56		VBS0038	FE HEAD	1	
1-58		VHN0110	ADJUST NUT	1	
1-59		VJS2964A013	CONNECTOR (15P)	1	
1-60		VMX1544	P4 UPPER LIMITER	1	
1-61		VMX1568	P4 SLEEVE	1	
1-62		VMX1534	P4 LOWER LIMITER	1	
1-63		VDG0664	CONNECTION GEAR	1	
1-64		VDG0483	PINCH SPEED DOWN GEAR	1	
1-65		VES0489	SAFETY SWITCH	1	
1-66		VXL2262KIT	HEAD CLEANING UNIT	1	<M><R>
1-67		VMB2532	CLEANING SPRING	1	
1-68		VMT0321	HEAD CLEANING PAD	1	
1-73		VMA6895	MOUNT PLATE (L)	1	
1-74		VMA6896	MOUNT PLATE (R)	1	
1-75		VXA4838	MECHANISM CONNECTION UNIT	1	
1-76		VXA3520	LED UNIT	1	
1-77		VMD0911	LED HOLDER	1	
1-78		VMB2020	EARTH SPRING	1	
1-79		GL450	LED	1	
1-80		VMX1079	CUT WASHER	2	
1-81		XTV26+6F	SCREW	16	
1-82		XTV2+4F	SCREW	2	
1-83		XSN3+3.5	SCREW	2	
1-85		VHD0322	SCREW	1	
1-86		VHD0089B	SCREW	1	
1-87		XSN3D6FZ	SCREW	1	
1-88		VHN0063	M4 NYLON NUT	1	
1-89		XWE4	M4 NYLON WASHER	2	
1-90		VHD0374	SCREW	3	
1-91		VMX0653	CUT WASHER	2	
1-92		XWGV3D6G	POLLY SLIDER WASHER	1	
1-93		VHD0045	M3 NYLON NUT	1	
1-94		XWE3VW	M3 WASHER	1	
1-95		VHD0425	SCREW	2	
1-96		XTV26+10F	SCREW	4	
1-97		VHD0133	SCREW	2	
1-98		XYN26+F6FZ	SCREW	1	
1-99		XTN3+6F	SCREW	1	
1-100		VHD0342	SCREW	3	
1-101		XTV2+6J	SCREW	1	
1-103		XTW3+8LR	SCREW	2	
1-104		XTV26+8F	SCREW	1	
1-105		VMX1061	CUT WASHER	1	

❷ *Moving Mechanism Section*



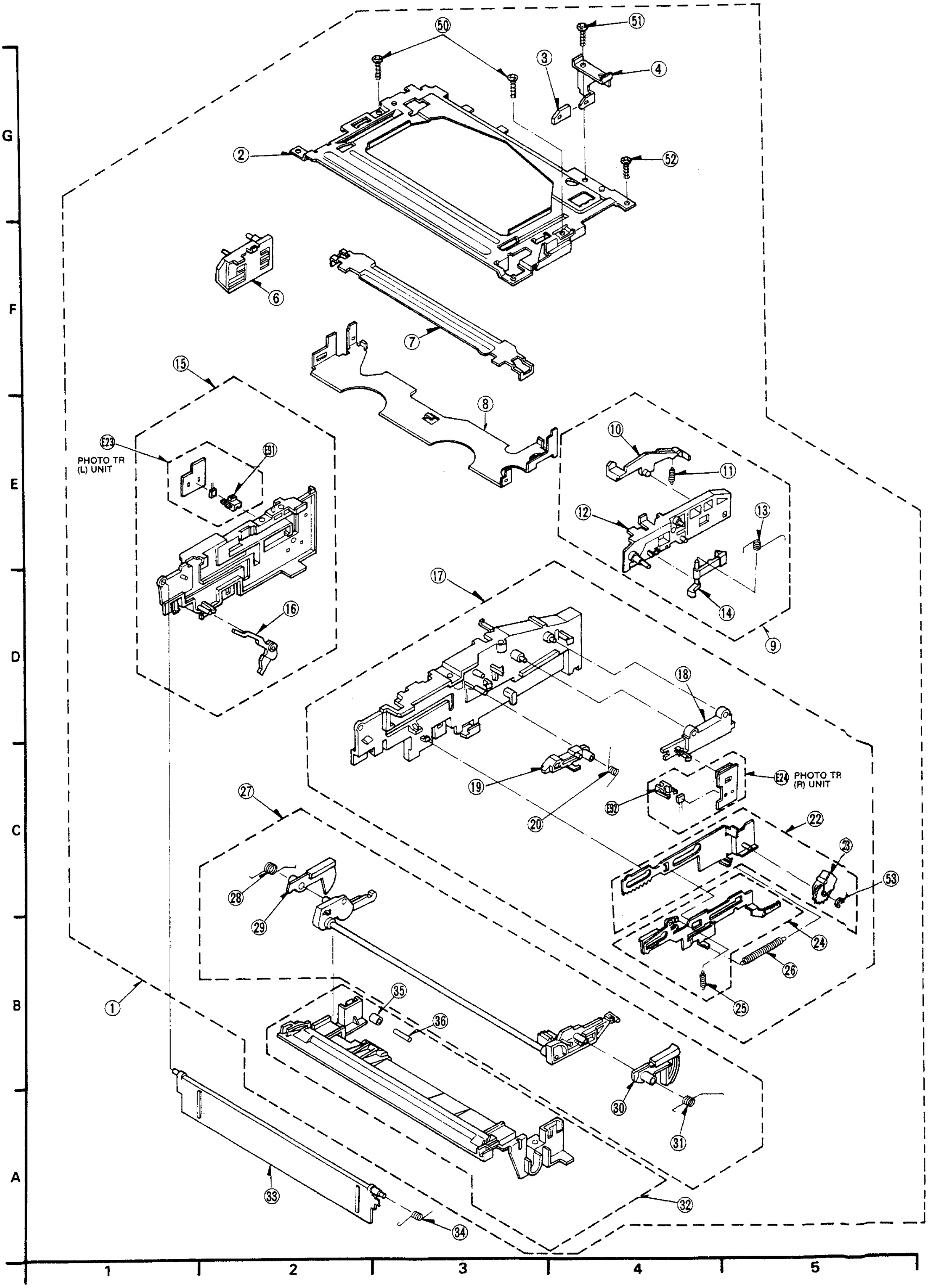
2. Moving Mechanism Section

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
2-1		VXP1082	WORM SHAFT UNIT	1	
2-2		VDV0215	LOADING BELT	1	<M><R>
2-3		VDG0581	WORM WHEEL	1	
2-4		VDG0582	INTERMEDIATE GEAR	1	
2-5		VXA3646	GEAR BASE (1) UNIT	1	
2-6		VXS0098	EARTH SPRING	1	
2-8		VXA4839	STATOR BASE UNIT	1	
2-9		VMD0611	FG SUPPORT (1)	2	
2-10		VMD0621	FG SUPPORT (2)	2	
2-11		HW-300B	HOLE IC	2	<R>
2-12		VJP1230R	CONNECTOR (3P)	1	
2-13		VJP3202A008Z	CONNECTOR (8P)	1	
2-14		VJP1230T	CONNECTOR (3P)	1	
2-15		VSJ0066	SOLENOID	1	<!>
2-16		VXZ0270	MAIN BRAKE (S) UNIT	1	<R>
2-17		VMB1978	BRAKE SPRING	1	
2-18		VXZ0271	MAIN BLAKE (T) UNIT	1	<R>
2-23		VXR0187	TAKEUP REEL TABLE UNIT	1	<R>
2-24		VXR0225	SUPPLY REEL TABLE UNIT	1	<R>
2-25		VEK4097	STATOR UNIT	1	
2-26		VBK0048	MR HEAD	1	<R>
2-27		VJS2587	CONNECTOR	1	
2-28		VXP1328	ROTOR UNIT	1	
2-29		VMA6847	SUB PLATE	1	
2-30		VDG0580	CENTER GEAR	1	
2-31		VXP0878	RETANER GEAR UNIT	1	
2-32		VDG0342	RING GEAR	1	
2-33		VDG0578	MAIN CAM GEAR	1	
2-34		VDG0343	SUB CAM GEAR	1	
2-35		VXL1895	CAM FOLLOWER ARM UNIT	1	
2-36		VML1861	DETENT ARM	1	
2-37		VMM0218	MAIN ROD	1	
2-38		VXA3144	SECTOR GEAR UNIT	1	
2-39		VDG0579	LOADING CAM GEAR	1	
2-40		VDG0420	LOADING GEAR (T)	1	
2-41		VMB1555	LOADING SPRING (T)	1	
2-42		VDG0593	LOADING GEAR (S)	1	
2-43		VMB1746	LOADING SPRING (S)	1	
2-44		VXL1489	LOADING ARM (T) (1) UNIT	1	
2-45		VXL1487	LOADING ARM (S) (1) UNIT	1	
2-46		VML2304	CLEANING ROD	1	
2-47		VMA8003	MOUNT PLATE (B)	1	
2-70		XTV26+6F	SCREW	12	
2-71		VMX0653	CUT WASHER	2	
2-72		XYN2+F5	SCREW	2	
2-73		XSN26+4	SCREW	3	
2-74		XYEV0004	SCREW	3	
2-75		XYNV0015	SCREW	2	
2-76		XUEV3VW	WASHER	6	
2-77		VMX1079	CUT WASHER	3	
2-78		XTV3+8F	SCREW	2	

3. Cassette Compartment Section

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
3-1		VXA3975	CASSETTE COMPERTMENT UNIT	1	<R>
3-2		VMA8166	TOP PLATE	1	
3-3		VMD1384	CASSETTE HOLDER CAP	1	
3-4		VMA7992	CASSETTE HOLDER ANGLE	1	
3-6		VMD1387	HOLDER GUIDE	1	
3-7		VXA3691	HOLDER ANGLE UNIT	1	
3-8		VMA7989	CASSETTE HOLDER	1	
3-9		VXA3692	HOLDER GUIDE (R) UNIT	1	
3-10		VML1882	DOOR OPEN LEVER	1	
3-11		VMB1584	DOOR OPEN LEVER SPRING	1	
3-12		VMD1386	HOLDER GUIDE (R)	1	
3-13		VMB2063	RELEASE SPRING	1	
3-14		VML2306	RELEASE LEVER	1	
3-15		VXA3694	SIDE PLATE (L) UNIT	1	
3-16		VML2305	OPENER LEVER	1	
3-17		VXA3693	SIDE PLATE (R) UNIT	1	
3-18		VSS0258	SLIDE SWITCH	1	<R>
3-19		VML2288	DOWN SUPPORT LEVER	1	
3-20		VMB1961	DOWN SUPPORT SPRING	1	
3-22		VXA3696	MAIN RACK UNIT	1	
3-23		VDG0737	DAMPER	1	
3-24		VXA3697	SUB RACK UNIT	1	
3-25		VMB1780	RACK C SPRING	1	
3-26		VMB1997	CLUTCH SPRING	1	
3-27		VXP1089	MAIN SHAFT UNIT	1	
3-28		VMB1999	SUB WIPER SPRING (L)	1	
3-29		VML1878	SUB WIPER ARM (L)	1	
3-30		VML1879	SUB WIPER ARM (R)	1	
3-31		VMB1998	SUB WIPER SPRING (R)	1	
3-32		VXA4501	CASSETTE GUIDE UNIT	1	
3-33		VKF1464	BLINDER PANEL	1	
3-34		VMB1258	BLINDER SPRING	1	
3-35		VDP1398	CASSETTE ROLLER	1	
3-36		VMS3061	ROLLER SHAFT	1	
3-38		VMS4644	SHAFT	1	
3-39		VMD1773	CASSETTE SUPPORT	1	
3-40		VMB2329	SUPPORT SPRING	1	
3-50		XTV26+8G	SCREW	2	
3-51		XTV26+6F	SCREW	1	
3-52		XTV3+8G	SCREW	1	
3-53		XUC25FP	E RING	1	

❸ Cassette Compartment Section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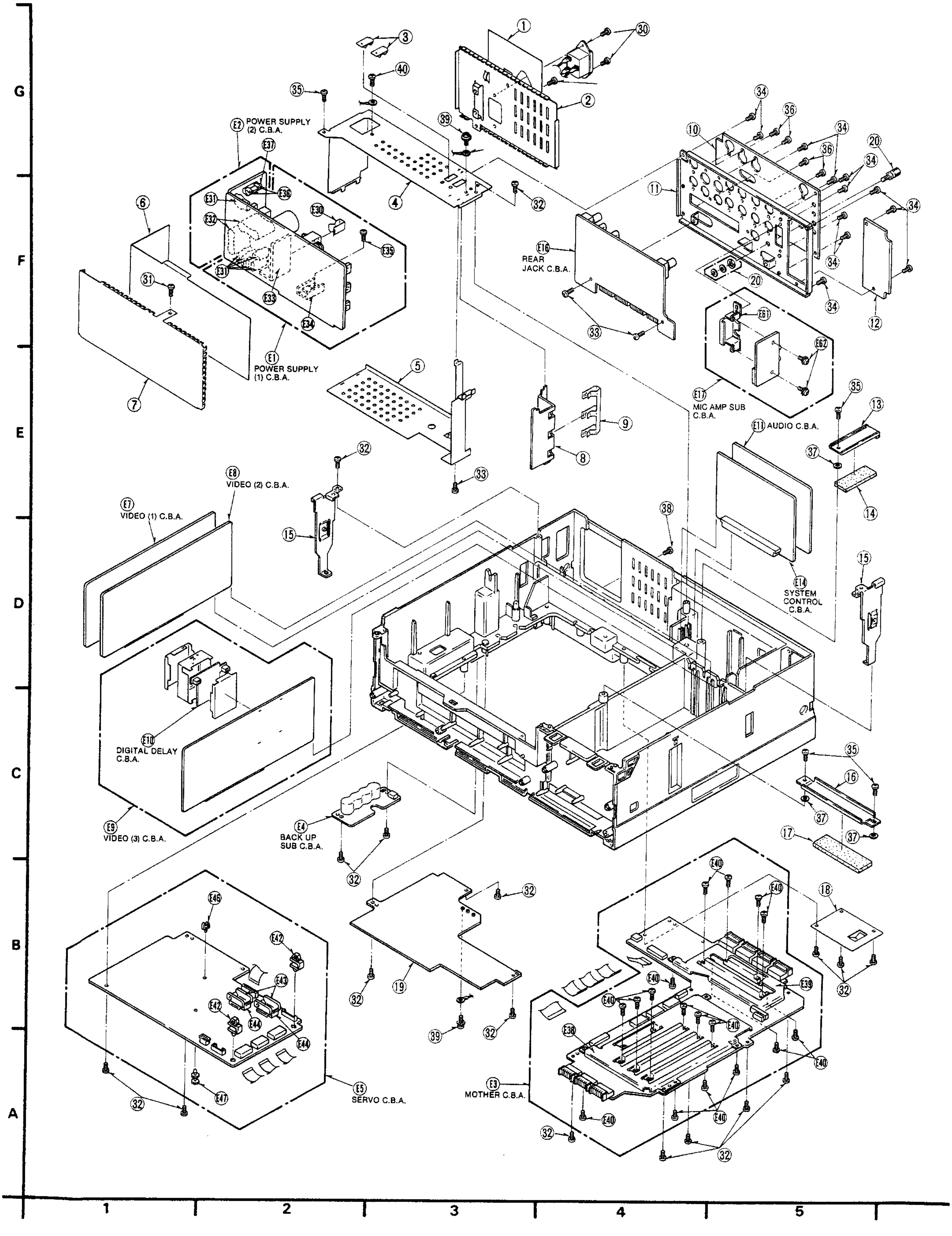
❹ Chassis & Frame Section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E2 POWER SUPPLY (2) C.B.A.
E1 POWER SUPPLY (1) C.B.A.
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E36
E37
E16 REAR JACK C.B.A.
E61
E62
E17 MIC AMP SUB C.B.A.
E11 AUDIO C.B.A.
E14 SYSTEM CONTROL C.B.A.
E8 VIDEO (2) C.B.A.
E7 VIDEO (1) C.B.A.
E10 DIGITAL DELAY C.B.A.
E9 VIDEO (3) C.B.A.
E4 BACK UP SUB C.B.A.
E46
E42
E43
E44
E47
E5 SERVO C.B.A.
E3 MOTHER C.B.A.
E38
E39
E40

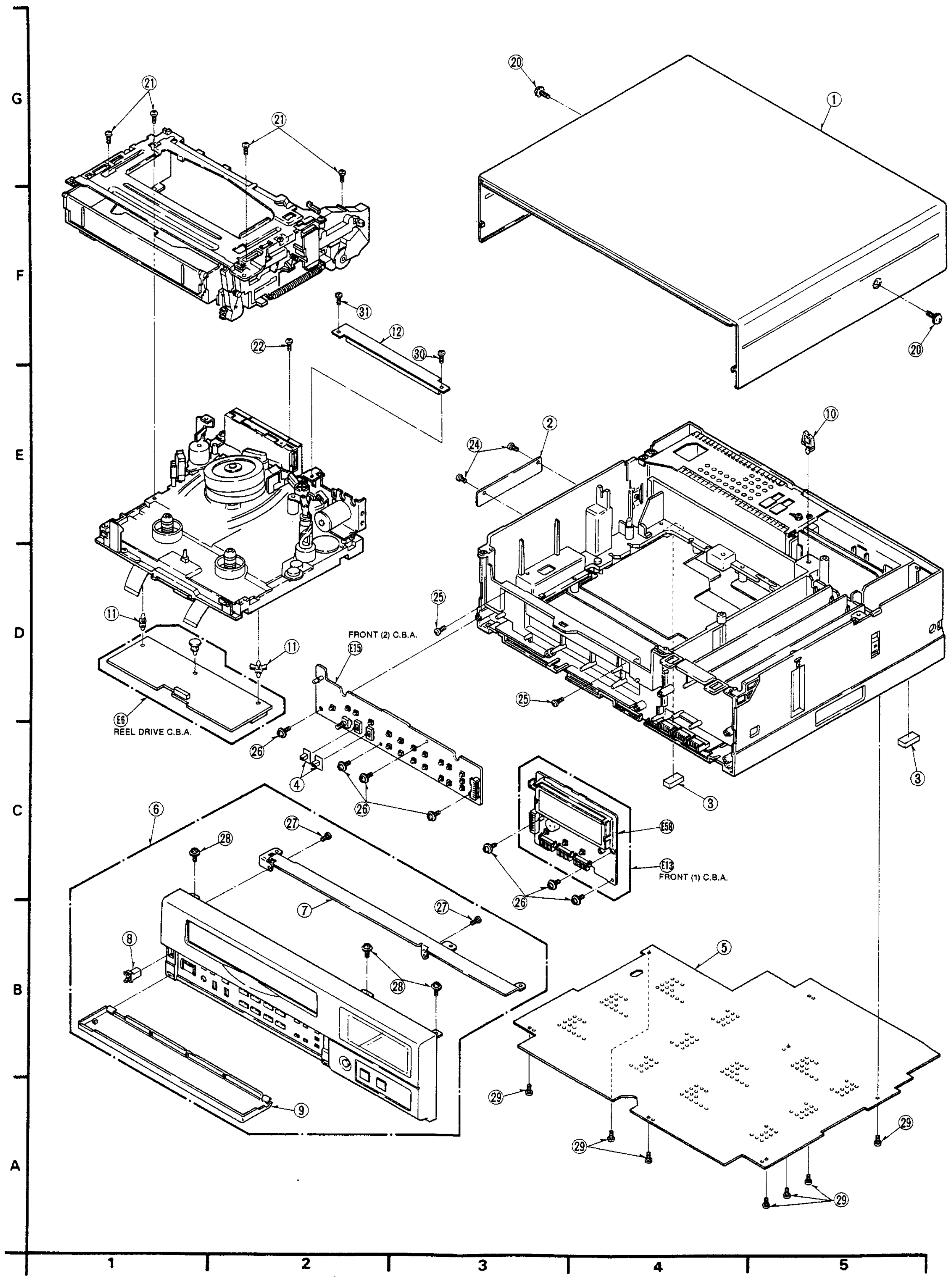
4. Chassis & Frame Section

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
4-1		VGH3071	INLET PLATE (T)	1	
4-2		VMP3838	POWER SHIELD CASE (REAR)	1	
4-3		VMC0357	TR SPRING	2	
4-4		VSC3735	POWER SHIELD CASE (UPPER)	1	<!>
4-5		VSC3736	POWER SHIELD CASE (LOWER)	1	
4-6		VMZ2031	INSULATION SHEET	1	
4-7		VSC3737	POWER SHIELD CASE (FRONT)	1	
4-8		VSC3738	HEAT SINK	1	
4-9		VMC0907	HEAT SINK SPRING	1	
4-10		VGH3066	REAR JACK PLATE	1	
4-11		VJH0676	REAR JACK ANGLE	1	
4-12		VMP3835	ORNAMENTAL PLATE	1	
4-13		VMP3844	C.B. HOLDER (B)	1	
4-14		VMX2201	C.B. CUSHION (B)	1	
4-15		VMP3841	SIDE ANGLE UNIT	2	
4-16		VMP3843	C.B. HOLDER (A)	1	
4-17		VMX2200	C.B. CUSHION (A)	1	
4-18		VMZ2061	INSULATION SHEET	1	
4-19		VMP3842	SHIELD PLATE	1	
4-20		VJH0082	EARTH TERMINAL	1	
4-30		XTV3+8JFZ	SCREW	2	
4-31		XYE3+EF8	SCREW	1	
4-32		XTV3+10GR	SCREW	18	
4-33		XTV3+8F	SCREW	3	
4-34		XTV3+8FFZ	SCREW	12	
4-35		XTV3+8FR	SCREW	3	
4-36		XTV3+8GFZ	SCREW	4	
4-37		VMX1558	NYLON WASHER	3	
4-38		XTV3+10FFZ	SCREW	1	
4-39		XYE3+EF8R	SCREW	2	
4-40		XYE4+EF5	SCREW	1	

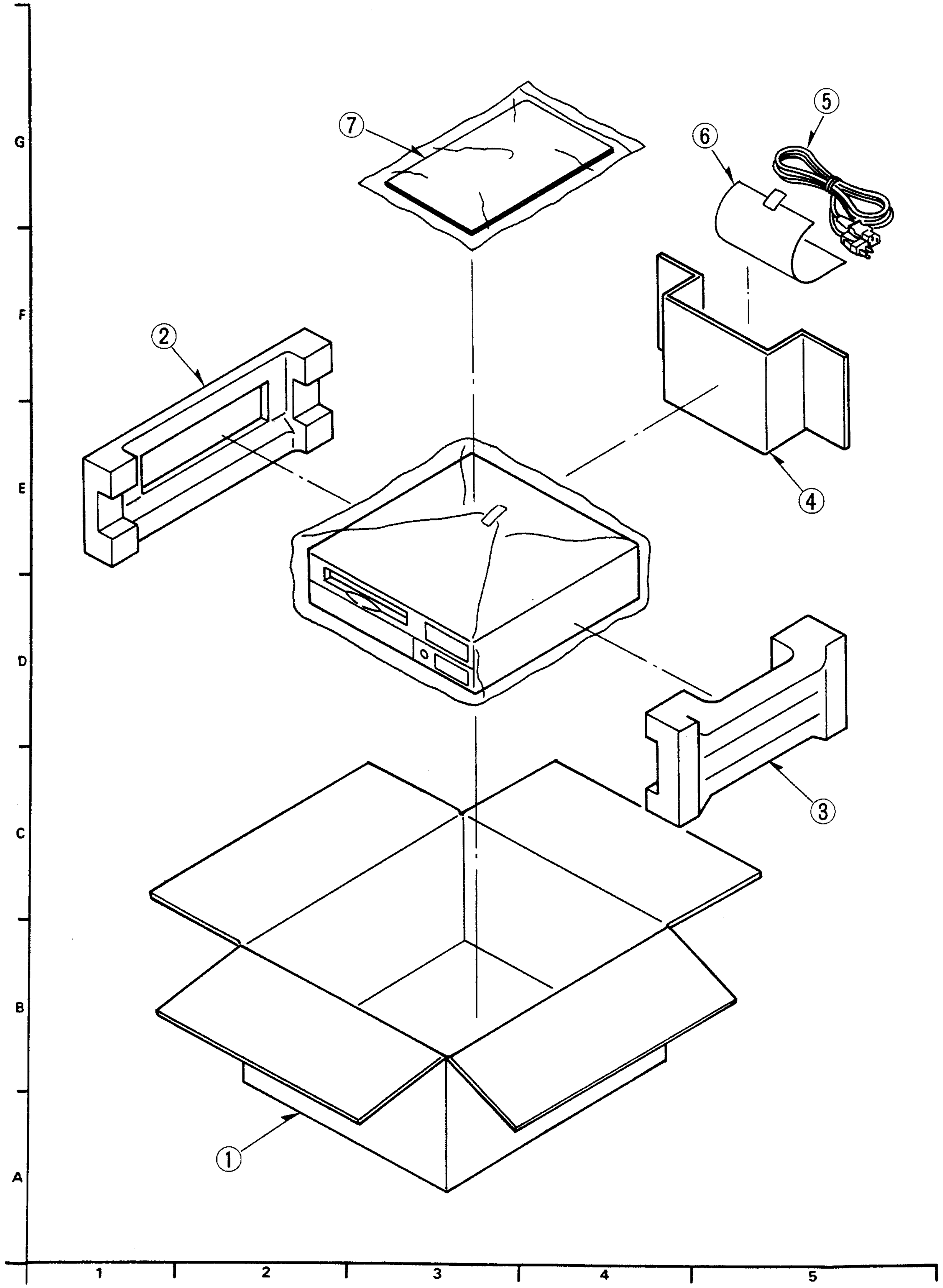
5. Casing Parts Section

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
5-1		VGM0954	TOP PANEL	1	
5-2		VGK2066	VOLUME COVER	1	
5-3		VMX2174	RUBBER FOOT	2	
5-4		VGU6015	SLIDE KNOB	2	
5-5		VKU0377	BOTTOM PLATE	1	
5-6		VYP5166	FRONT PANEL UNIT	1	
5-7		VMP3833	FRONT SUPPORT ANGLE	1	
5-8		VGQ2925	LATCH	1	
5-9		VYF1901	FRONT COVER	1	
5-10		VJF0004	MINI CLAMPER	1	
5-11		VJF0726	SUPPORT	2	
5-12		VMZ2079	SHIELD PLATE	1	
5-20		VHD0426	SCREW	2	
5-21		XTV26+8FR	SCREW	4	
5-22		XTV4+12J	SCREW	1	
5-23		XTW3+8LR	SCREW	2	
5-24		XTV3+6JFZ	SCREW	2	
5-25		XTV4+8F	SCREW	2	
5-26		XTV4+10JR	SCREW	7	
5-27		XTV3+8J	SCREW	2	
5-28		XTW3+10PR	SCREW	3	
5-29		XTV3+10J	SCREW	7	
5-30		XTV3+8FFR	SCREW	1	
5-31		XYN3+F6	SCREW	1	

❺ *Casing Parts Section*



❻ *Packing Parts Section*



6. Packing Parts Section

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
6-1		VPG6527	PACKING CASE	1	
6-2		VPN3481	CUSHION (LEFT)	1	
6-3		VPN3482	CUSHION (RIGHT)	1	
6-4		VPN3517	PAD	1	
6-5		VJA0746	POWER CORD	1	<!> ROUND PIN
6-5		VJA0738	POWER CORD	1	<!> SQUARE PIN
6-6		VPF0136	POWER CORD SHEET	2	
6-7		VQT4864	OPERATING INSTRUCTIONS (ENGLISH)	1	<!>
6-7		VQT5236	OPERATING INSTRUCTIONS (GERMAN)	1	<!>
6-7		VQT4865	OPERATING INSTRUCTIONS (FRENCH)	1	<!>

ELECTRICAL REPLACEMENT PARTS LIST

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
E1		VEP01516A	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			POWER SUPPLY 1		
E2		VEP01517A	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			POWER SUPPLY 2		
E3		VEP00S47A	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			MOTHER		
E4		VEP00S71A	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			BACK UP SUB		
E5		VEP02398C	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			SERVO		
E6		VEP02399A	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			REEL DRIVE		
E7		VEP03982A	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			VIDEO 1		
E8		VEP03983A	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			VIDEO 2		
E9		VEP03984A	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			VIDEO 3		INCLUDING THE
					DIGITAL DELAY
					(VEP03968A)
E10		VEP03968A	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			DIGITAL DELAY		PARTS LIST IS
					INCLUDED IN VIDEO 3
					(VEP03984A)
E11		VEP04389C	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			AUDIO		
E12		VEP05162G	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			HEAD AMP		
E13		VEP06826F	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			FRONT 1		
E14		VEP06827D	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			SYSCON		
E15		VEP06834A	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			FRONT 2		
E16		VEP04385D	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			REAR JACK		
E17		VEP04387A	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			MIC AMP SUB		
E23		VEK3578	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			PHOTO TR (L) UNIT		
E24		VEK4058	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			PHOTO TR (R) UNIT		
E25		VEK2657	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			TENSION SENSOR UNIT		
E26		VEK4265	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			REV. TENSION SENSOR UNIT		
E27		VEK6042	P.C.BOARD W/COMPONENT	1	(RTL)<R>
			MOTOR BASE		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP01516A	P.C.BOARD W/COMPONENT		
			POWER SUPPLY 1		
			CAPACITORS		
C1004		ECQU2A224MN	P.CAPACITOR 250V 0.22U	1	
C1005		VCK0046	C.CAPACITOR 2200P	1	
C1007		ECEA1AGE101	E.CAPACITOR 10V 100U	1	
C1008		ECQU2A224MN	P.CAPACITOR 250V 0.22U	1	
C1009		ECEA1CGE101	E.CAPACITOR 16V 100U	1	
C1010		VCK0046	C.CAPACITOR 2200P	1	
C1011		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C1012		ECOS2GA121BB	E.CAPACITOR 400V 120U	1	
C1013		ECQE6473MZ	P.CAPACITOR 630V 0.047U	1	
C1014		ECKD3D151KB	C.CAPACITOR 2KV 150P	1	
C1015		ECA1VXLV470	E.CAPACITOR 35V 47U	1	
C1017		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
C1018		ECA1CXLV101	E.CAPACITOR 16V 100U	1	
C1019		ECA1AFZ331	E.CAPACITOR 10V 330U	1	
C1020		ECEA1AGE471	E.CAPACITOR 10V 470U	1	
C1021		ECQB1H473JF	P.CAPACITOR 50V 0.047U	1	
C1022-25		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	4	
C1026		ECEA1HFS101	E.CAPACITOR 50V 100U	1	
C1027		ECA1VFQ681	E.CAPACITOR 35V 680U	1	
C1028		ECEA1VGE471	E.CAPACITOR 35V 470U	1	
C1029		ECEA1CGE102	E.CAPACITOR 16V 1000U	1	
C1030		ECKD2H101KB	C.CAPACITOR 500V 100P	1	
C1031		ECA1EFZ471	E.CAPACITOR 25V 470U	1	
C1032		ECEA1EGE471	E.CAPACITOR 25V 470U	1	
C1033		ECKD2H101KB	C.CAPACITOR 500V 100P	1	
C1034		ECA1AFZ122	E.CAPACITOR 10V 1200U	1	
C1035		ECQB1H104JF	P.CAPACITOR 50V 0.1U	1	
C1038		VCK0046	C.CAPACITOR 2200P	1	
D1001		RB154LF-B	DIODE	1	<R>
D1005		MA723VT	DIODE	1	(VT)<R>
D1006		AK04	DIODE	1	<R>
D1007		VSD0001	DIODE	1	<R>
D1008		RL42	DIODE	1	<R>
D1010,11		FMLG12SP	DIODE	2	<R>
D1012		UPC1093J	IC	1	<R>
D1014		AP01C	DIODE	1	<R>
D1015		VSD0001	DIODE	1	<R>
D1016		MA4200H	DIODE	1	<R>
D1017		FMLG12SP	DIODE	1	<R>
IC1001		STRS6545LF	IC	1	<R>
IC1002		SI3120CA	IC	1	<R>
IC1003		SI3050C	IC	1	<R>
IC1005		AN7812	IC	1	<R>
L1002		ELF18D417	COIL	1	
L1003		VLP0074	COIL	1	
L1004		VLQ0410	COIL	1	
L1005,06		VLQ0354	COIL	2	
L1008		VLQEL06F101K	COIL 100UH	1	
L1009		VLP0083	FILTER	1	
P1002,03		VJP3324	CONNECTOR (MALE)	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q1001		PC111LY1	TRANSISTOR	1	<R>
			RESISTORS		
R1003		ERDS2TJ224	C.RESISTOR 1/4W 220K	1	
R1005		ERG3SJ683	M.RESISTOR 3W 68K	1	
R1006		ERDS2FJ221	C.RESISTOR 1/4W 220	1	
R1007		ERDS2FJ561	C.RESISTOR 1/4W 560	1	
R1008		ERDS2FJ471	C.RESISTOR 1/4W 470	1	
R1009		ERW1PK1R0	W.RESISTOR 1W 1.0	1	
R1010		ERDS2FJ682	C.RESISTOR 1/4W 6.8K	1	
R1011		ERDS2FJ101	C.RESISTOR 1/4W 100	1	
R1012		ERDS2FJ103	C.RESISTOR 1/4W 10K	1	
R1013		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R1014		ERDS2FJ561	C.RESISTOR 1/4W 560	1	
R1015		EROS2CKG1801	M.RESISTOR 1/4W 1.8K	1	
R1016		ERDS2T0	C.RESISTOR 1/4W 0	1	
R1017		EROS2CKG1301	M.RESISTOR 1/4W 1.3K	1	
R1020		EROS2CKG22R0	M.RESISTOR 1/4W 22.0	1	
R1021		EROS2CKG1201	M.RESISTOR 1/4W 1.2K	1	
R1025		ERD2FCJ4R7P	C.RESISTOR 4.7	1	
R1026		ERF5AK2R2	W.RESISTOR 5W 2.2	1	
R1027		ERDS2TJ224	C.RESISTOR 1/4W 220K	1	
T1001		VLT0691	TRANSFORMER	1	
			MISCELLANEOUS		
E30		VMC0811	SPRING	1	
E31		VMZ0965	CAPACITOR COVER	3	
E32		VMZ1305	CAPACITOR COVER	2	
E33		VSC3487	HEAT SINK	1	
E34		VSC3434	SHIELD CASE	1	
E35		XTV3+6F	SCREW	1	
	■	VEP01517A	P.C.BOARD W/COMPONENT		
			POWER SUPPLY 2		
			CAPACITORS		
C1001-03		VCK0046	C.CAPACITOR 2200P	3	
C1006		VCK0046	C.CAPACITOR 2200P	1	
C1036		VCK0046	C.CAPACITOR 2200P	1	
C1037		VCC0024	C.CAPACITOR 2200P	1	
F1001		VSF0106C20H	FUSE	1	<!><R>
L1001		ELF18D417	COIL	1	
P1001		VJP2638	CONNECTOR (MALE)	1	
			RESISTORS		
R1002		ERC12GM334	S.RESISTOR 1/2W 330K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			MISCELLANEOUS		
E36		VJF0318	FUSE HOLDER	2	
E37		VMZ0429	FUSE COVER	1	
E31		VMZ0965	CAPACITOR COVER	5	
		VMZ1608	CAPACITOR TUBE	1	
	■	VEP00S47A	P.C.BOARD W/COMPONENT		
			MOTHER		
P901		VJS1413	CONNECTOR(FEMALE)	1	
P902		VJP1243T	CONNECTOR(MALE) 3P	1	
P911,12		VJS3324	CONNECTOR (FEMALE)	2	
P921		VJS2214	CONNECTOR (FEMALE)	1	
P922-24		VJS3215B012	CONNECTOR (FEMALE)	3	
P931-33		VJS2898A064	CONNECTOR (FEMALE)	3	
P942		VJS2898A032	CONNECTOR (FEMALE)	1	
P943-46		VJS3152	CONNECTOR (FEMALE)	4	
P961		VJS2898A064	CONNECTOR (FEMALE)	1	
P962-64		VJS3152	CONNECTOR (FEMALE)	3	
			MISCELLANEOUS		
E38		VMP3845	ANGLE	1	
E39		VMP3846	ANGLE B	1	
E40		XTV26+8F	SCREW	17	
E41		XNG26BFZ	NUT	4	
	■	VEP00S71A	P.C.BOARD W/COMPONENT		
			BACK UP SUB		
BAT2991		VSB0047	BATTERY	1	
P2991		VJP1243T	CONNECTOR(MALE) 3P	1	
	■	VEP02398C	P.C.BOARD W/COMPONENT		
			SERVO		
			CAPACITORS		
C2001		ECEA1CKN100	E.CAPACITOR 16V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2002		ECEA1AKA330	E.CAPACITOR 10V 33U	1	
C2003		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C2004		ECEA1HKA010	E.CAPACITOR 50V 1U	1	
C2005		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C2006		ECEA1AKA330	E.CAPACITOR 10V 33U	1	
C2007		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2008		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2009		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C2010		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C2011		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C2012		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C2013		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2014		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2015		ECQB1H332JF	P.CAPACITOR 50V 3300P	1	
C2016		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C2017		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2019		ECQB1H472JF	P.CAPACITOR 50V 4700P	1	
C2021		ECEA1CKA330	E.CAPACITOR 16V 33U	1	
C2022		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C2023		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2024		ECUM1H471JCN	C.CAPACITOR CH 50V 470P	1	
C2025		ECEA0JKA221	E.CAPACITOR 6.3V 220U	1	
C2026		ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C2027		ECEA1HKA3R3	E.CAPACITOR 50V 3.3U	1	
C2028		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C2029,30		ECEA1EKN3R3	E.CAPACITOR 25V 3.3U	2	
C2031		ECUM1H223ZFN	C.CAPACITOR CH 50V 0.022U	1	
C2032		ECUM1H392KBN	C.CAPACITOR CH 50V 3900P	1	
C2033		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2034		ECQB1H683JF	P.CAPACITOR 50V 0.068U	1	
C2036		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C2037		ECEA1HKA4R7	E.CAPACITOR 50V 4.7U	1	
C2038		ECUM1H222KBN	C.CAPACITOR CH 50V 2200P	1	
C2039		ECEA0JKA221	E.CAPACITOR 6.3V 220U	1	
C2040		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C2041-45		ECUM1H271JCN	C.CAPACITOR CH 50V 270P	5	
C2046		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C2047		ECUM1H271JCN	C.CAPACITOR CH 50V 270P	1	
C2048		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C2049,50		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	2	
C2051,52		ECUM1H271JCN	C.CAPACITOR CH 50V 270P	2	
C2053		ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C2054		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C2055		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C2056		ECEA0JKA221	E.CAPACITOR 6.3V 220U	1	
C2301		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2302		ECEA1HKN4R7	E.CAPACITOR 50V 4.7U	1	
C2303-06		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	4	
C2307		ECQB1H683JF	P.CAPACITOR 50V 0.068U	1	
C2308,09		ECEA1HKN4R7	E.CAPACITOR 50V 4.7U	2	
C2310		ECQB1H473JF	P.CAPACITOR 50V 0.047U	1	
C2311		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2312		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C2313		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C2314		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2315		ECUM1H333ZFN	C.CAPACITOR CH 50V 0.033U	1	
C2316		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2317-19		ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	3	
C2320-23		ECUM1H333ZFN	C.CAPACITOR CH 50V 0.033U	4	
C2324		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2325		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C2326,27		ECEA0JKA470	E.CAPACITOR 6.3V 47U	2	
C2328		ECEA1AKA220	E.CAPACITOR 10V 22U	1	
C2329,30		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	2	
C2331		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C2332		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C2333		ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	1	
C2334		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C2335		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C2336		ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	1	
C2337,38		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	2	
C2339		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2901		ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C2902		ECEA1HKA010	E.CAPACITOR 50V 1U	1	
C2903		ECUM1H271JCN	C.CAPACITOR CH 50V 270P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2904		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C2905		ECUM1H561JCN	C.CAPACITOR CH 50V 560P	1	
C2906		ECEA1HKA010	E.CAPACITOR 50V 1U	1	
C2907		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2908		ECQB1H222JF	P.CAPACITOR 50V 2200P	1	
C2909		ECEA1EU101	E.CAPACITOR 25V 100U	1	
C2910		ECEA1HKA4R7	E.CAPACITOR 50V 4.7U	1	
C2911		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C2912		ECEA1EU101	E.CAPACITOR 25V 100U	1	
C2913		ECEA1HKA4R7	E.CAPACITOR 50V 4.7U	1	
C2914		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C2915-17		ECEA1EU101	E.CAPACITOR 25V 100U	3	
C2918		ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C2919		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2920		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2921		ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	1	
C2922		ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C2923		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C2924,25		ECEA1CKA101	E.CAPACITOR 16V 100U	2	
C2926		ECEA1AKA330	E.CAPACITOR 10V 33U	1	
C2927-29		ECEA1EU101	E.CAPACITOR 25V 100U	3	
D2001,02		MA151WK	DIODE	2	<R>
D2003		MA151K	DIODE	1	<R>
D2004,05		MA701	DIODE	2	<R>
D2006		MA151WK	DIODE	1	<R>
D2304,05		MA153	DIODE	2	<R>
D2306		MA4062M	DIODE	1	<R>
D2901		MA3140-M	DIODE	1	<R>
D2902		11DQ04	DIODE	1	<R>
D2903		MA3160-L	DIODE	1	<R>
D2904		11DQ04	DIODE	1	<R>
D2905		MA3160-L	DIODE	1	<R>
D2906		11DQ04	DIODE	1	<R>
D2907		MA701	DIODE	1	<R>
D2908		8P2M	DIODE	1	<R>
D2909		MA3020	DIODE	1	<R>
D2910,11		MA151K	DIODE	2	<R>
D2912		MA4140-M	DIODE	1	<R>
D2913		MA3140-M	DIODE	1	<R>
D2914-16		MA3160-H	DIODE	3	<R>
D2917-19		MA151K	DIODE	3	<R>
D2920		MA3062M	DIODE	1	<R>
					<R>
FL2001		VLF0634	FILTER	1	
FL2002-04		VLF0630	FILTER	3	
IC2001		MN6743VMCW	IC	1	<R>
IC2003		MN1280R	IC	1	<R>
IC2004		AN3727S	IC	1	<R>
IC2006		TC4S30F	IC	1	<R>
IC2007		MC14011BF	IC	1	<R>
IC2010		UPC358G2	IC	1	<R>
IC2011		MC14070BF	IC	1	<R>
IC2012		MC14011BF	IC	1	<R>
IC2014		LM393PS	IC	1	<R>
IC2015		TC4S66F	IC	1	<R>
IC2301		AN3815K	IC	1	<R>
IC2302		XRA6435S	IC	1	<R>
IC2303		LM358PS	IC	1	<R>
IC2304		LM393PS	IC	1	<R>
IC2305,06		UPC4556G2	IC	2	<R>
IC2307		AN78N12	IC	1	<R>
IC2901		BA6149LS	IC	1	<R>
IC2902		LM393PS	IC	1	<R>
J1,J2		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L2001-06		VLQ0460	COIL	6	
L2007,08		VLQEL05K221J	COIL 220UH	2	
L2010,11		VLQEL05K221J	COIL 220UH	2	
L2301,02		VLQ0460	COIL	2	
L2304		VLQ0460	COIL	1	
L2901		VLQ0460	COIL	1	
L2902		VLQ0128	COIL 47UH	1	
L2903		VLQ0129	COIL 300UH	1	
L2904,05		ELC10E014	COIL	2	
P2001-03		VJS3215B012	CONNECTOR (FEMALE)	3	
P2004		VJP1230T	CONNECTOR(MALE) 3P	1	
P2005		VJP1235T	CONNECTOR(MALE) 8P	1	
P2006		VJS2149W	CONNECTOR (FEMALE)	1	
P2301		VJP3078	CONNECTOR (MALE)	1	
P2302		VJS1477	CONNECTOR(FEMALE)	1	
Q2001		2SC2295	TRANSISTOR	1	<R>
Q2002		2SD602	TRANSISTOR	1	<R>
Q2003,04		MSD601-R	TRANSISTOR	2	<R>
Q2901		MSB709-R	TRANSISTOR	1	<R>
Q2902,03		2SD601A	TRANSISTOR CHIP	2	<R>
Q2904		2SB1151	TRANSISTOR	1	<R>
Q2905,06		MSB709-R	TRANSISTOR	2	<R>
Q2907		2SB772	TRANSISTOR	1	<R>
Q2908,09		MSB709-R	TRANSISTOR	2	<R>
Q2910		2SB772	TRANSISTOR	1	<R>
Q2911		MSD601-R	TRANSISTOR	1	<R>
Q2912		2SD1275	TRANSISTOR	1	<R>
QR2001,02		MRN1404	TRANSISTOR-RESISTOR	2	<R>
QR2003		MRN1402	TRANSISTOR-RESISTOR	1	<R>
QR2005		MRN1404	TRANSISTOR-RESISTOR	1	<R>
QR2901,02		MRN1404	TRANSISTOR-RESISTOR	2	<R>
QR2903,04		MRN2404	TRANSISTOR-RESISTOR	2	<R>
			RESISTORS		
R2001		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R2002		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R2003,04		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	2	
R2005		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R2006		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R2007,08		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R2009		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R2010,11		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
R2012		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2013		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R2014		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R2015,16		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	2	
R2017		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R2018,19		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
R2020		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R2022		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R2023		ERJ6GEYG622	M.RESISTOR CH 1/10W 6.2K	1	
R2025		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R2026		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R2027		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2028,29		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
R2030		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R2031		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R2032		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R2033		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R2034		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R2035		ERJ6GEYJ153	M.RESISTOR CH 1/10W 15K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2036-39		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	4	
R2040		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R2041		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R2042		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R2043-46		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	4	
R2047		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R2048-50		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	3	
R2051		ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R2053,54		ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	2	
R2055		ERJ6GEYG333	M.RESISTOR CH 1/10W 33K	1	
R2056		ERJ6GEYG224	M.RESISTOR CH 1/10W 220K	1	
R2057		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R2058,59		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
R2060		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R2061		ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	1	
R2062		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R2063		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R2301		ERDS2TJ150	C.RESISTOR 1/4W 15	1	
R2302		ERX12SJR68	M.RESISTOR 1/2W 0.68	1	
R2303,04		ERDS2TJ150	C.RESISTOR 1/4W 15	2	
R2305		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R2306		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2307,08		ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	2	
R2309		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R2310		ERJ6GEYG242	M.RESISTOR CH 1/10W 2.4K	1	
R2311		ERJ6GEYJ684	M.RESISTOR CH 1/10W 680K	1	
R2312		ERJ6GEYG273	M.RESISTOR CH 1/10W 27K	1	
R2313		ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2314		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R2315		ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2316		ERX12SJR47	M.RESISTOR 1/2W 0.47	1	
R2317		ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2318		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R2319-21		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	3	
R2322		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R2323		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R2324		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R2325-28		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	4	
R2329,30		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	2	
R2331		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R2332		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R2333		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2334		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R2335		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R2336		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R2901		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R2902		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R2903		ERJ6GEYJ154	M.RESISTOR CH 1/10W 150K	1	
R2904		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R2905,06		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R2907		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2908		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R2909-12		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	4	
R2913		ERDS2TJ270	C.RESISTOR 1/4W 27	1	
R2914		ERG2SJ561	M.RESISTOR 2W 560	1	
R2915		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R2916		ERJ6GEYJ153	M.RESISTOR CH 1/10W 15K	1	
R2917-19		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	3	
R2920		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R2921		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2922		ERDS2TJ391	C.RESISTOR 1/4W 390	1	
R2923		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R2924		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R2925		ERJ6GEYJ153	M.RESISTOR CH 1/10W 15K	1	
R2926-28		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	3	
R2929		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R2930		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R2931		ERDS2TJ391	C.RESISTOR 1/4W 390	1	
R2932		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R2933		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R2934,35		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R2936		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R2937-39		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	3	
R2940		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R2941		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R2942-44		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	3	
R2945,46		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R2947		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R2949-51		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	3	
R2952		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
SW2001		VSS0160	SWITCH	1	
VR2001		EVN49CA00B23	V.RESISTOR 2K	1	
VR2002		EVN49CA00B15	V.RESISTOR 100K	1	
VR2004		EVN49CA00B25	V.RESISTOR 200K	1	
VR2007,08		EVN49CA00B15	V.RESISTOR 100K	2	
X2002		VSX0296	CRYSTAL OSCILLATOR	1	<R>
X2901		VSX0136	CRYSTAL OSCILLATOR	1	<R>
			MISCELLANEOUS		
E42		VKC0271	HINGE	2	
E43		VSC1215	HEAT SINK	2	
E44		VMC0075	HEAT SINK FIXER	1	
E45		VMC0493	HEAT SINK FIXER	1	
E46		VJF0816	CORD CLAMPER	2	
E47		VMX0985	C.B.A. SPACER	1	
	■	VEP02399A	P.C.BOARD W/COMPONENT		
			REEL DRIVE		
			CAPACITORS		
C2701		ECQB1H103JF	P.CAPACITOR 50V 0.01U	1	
C2702		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C2703		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2704		ECUM1H333KBN	C.CAPACITOR CH 50V 0.033U	1	
C2705		ECQV1H564JZ	P.CAPACITOR 50V 0.56U	1	
C2706-08		ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	3	
C2709-12		ECUM1H333KBN	C.CAPACITOR CH 50V 0.033U	4	
C2713		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2714		ECEA0JKA101	E.CAPACITOR 6.3V 100U	1	
C2715-17		ECEA0JKA470	E.CAPACITOR 6.3V 47U	3	
C2718		ECQB1H103JF	P.CAPACITOR 50V 0.01U	1	
C2719		ECEA1EKA470	E.CAPACITOR 25V 47U	1	
C2720		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C2721		ECUM1H333KBN	C.CAPACITOR CH 50V 0.033U	1	
C2722		ECQV1H564JZ	P.CAPACITOR 50V 0.56U	1	
C2723-25		ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	3	
C2726-29		ECUM1H333KBN	C.CAPACITOR CH 50V 0.033U	4	
D2701		MA151K	DIODE	1	<R>
D2702		MA151WK	DIODE	1	<R>
D2703		MA151K	DIODE	1	<R>
D2704		MA153	DIODE	1	<R>
D2705		MA151K	DIODE	1	<R>
D2706		MA151WK	DIODE	1	<R>
D2707		MA151K	DIODE	1	<R>
D2708		MA153	DIODE	1	<R>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC2701,02		XRA6435S	IC	2	<R>
IC2703		LM358PS	IC	1	<R>
IC2704		MC14053BF	IC	1	(R)<R>
IC2705		LM339NS	IC	1	<R>
IC2706		LM358PS	IC	1	<R>
J2701		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
L2701-04		VLQ0460	COIL	4	
P2701		VJS3135	CONNECTOR (FEMALE)	1	
P2702		VJS2149W	CONNECTOR (FEMALE)	1	
P2703		VJS3202B008	CONNECTOR (FEMALE)	1	
P2704,05		VJS1412	CONNECTOR(FEMALE)	2	
Q2701		MSD601-R	TRANSISTOR	1	<R>
QR2701		MRN1404	TRANSISTOR-RESISTOR	1	<R>
			RESISTORS		
R2701		ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R2702,03		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R2704		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R2705		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R2706		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R2707,08		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R2709		ERJ6GEYJ105	M.RESISTOR CH 1/10W 1M	1	
R2710		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R2711		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R2712		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R2713,14		ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2715		ERX12SJ1R0	M.RESISTOR 1/2W 1	1	
R2716		ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2717		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R2718		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R2719		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R2720		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R2721		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R2722,23		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R2724		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R2725,26		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R2727		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R2728		ERJ6GEYJ823	M.RESISTOR CH 1/10W 82K	1	
R2729,30		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R2731		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R2732		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R2733		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R2734,35		ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2736		ERX12SJR47	M.RESISTOR 1/2W 0.47	1	
R2737		ERDS2TJ330	C.RESISTOR 1/4W 33	1	
R2738		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R2739		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R2740		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R2741,42		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R2743		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
			MISCELLANEOUS		
		VMX2183	SPACER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP03982A	P.C.BOARD W/COMPONENT		
			VIDEO 1		
			CAPACITORS		
C3001		ECUM1H121JCN	C.CAPACITOR CH 50V 120P	1	
C3004		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C3006		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3007		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C3008,09		ECEA1CU220	E.CAPACITOR 16V 22U	2	
C3011		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3012		ECEA1AN220S	E.CAPACITOR 10V 22U	1	
C3013		ECEA1CU220	E.CAPACITOR 16V 22U	1	
C3014,15		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	2	
C3016		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C3017,18		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3020,21		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3022		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C3023		ECEA1CU220	E.CAPACITOR 16V 22U	1	
C3024		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C3025		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3026		ECEA1HN4R7S	E.CAPACITOR 50V 4.7U	1	
C3027		ECEA1CU220	E.CAPACITOR 16V 22U	1	
C3028		ECEA1HKN2R2	E.CAPACITOR 50V 2.2U	1	
C3029		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C3031		ECEA1CN100S	E.CAPACITOR 16V 10U	1	
C3032		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C3033		ECEA1HU2R2	E.CAPACITOR 50V 2.2U	1	
C3034		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C3035		ECEA1EN4R7S	E.CAPACITOR 25V 4.7U	1	
C3036		ECEA0JU101	E.CAPACITOR 6.3V 100U	1	
C3037		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3038		ECEA1EKN4R7	E.CAPACITOR 25V 4.7U	1	
C3039		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C3040		ECEA1CN100S	E.CAPACITOR 16V 10U	1	
C3041		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C3042		ECUM1E104KBN	C.CAPACITOR 25V 0.1U	1	
C3043		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C3044		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C3045		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3046		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3047		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3048		ECUM1H391JCN	C.CAPACITOR CH 50V 390P	1	
C3050		ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C3051,52		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3053		ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C3054		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C3055-57		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C3058		ECEA1CN100S	E.CAPACITOR 16V 10U	1	
C3059		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C3060		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3061,62		ECEA1CN100S	E.CAPACITOR 16V 10U	2	
C3063		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C3064		ECEA1CN220S	E.CAPACITOR 16V 22U	1	
C3065		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3066		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3068		ECEA0JU101	E.CAPACITOR 6.3V 100U	1	
C3069		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C3070		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3071		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3072		ECEA1CU101	E.CAPACITOR 16V 100U	1	
C3074		ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	
C3075		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3076		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3077		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3078		ECEA1HU010	E.CAPACITOR 50V 1U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3082		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C3083-86		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	4	
C3087		ECUM1H080DCN	C.CAPACITOR CH 50V 80P	1	
C3088,89		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	2	
C3090		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3091		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C3092		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3093		ECUM1H100DCN	C.CAPACITOR CH 50V 10P	1	
C3095		ECUM1H681JCN	C.CAPACITOR CH 50V 680P	1	
C3096		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3097		ECUM1H020DCN	C.CAPACITOR CH 50V 2P	1	
C3098		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3099		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C3100		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C3102		ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3103		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3104		ECEA1HU3R3	E.CAPACITOR 50V 3.3U	1	
C3105-07		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C3108		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3109-12		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	4	
C3113		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3114,15		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3116		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C3117		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3118		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3119,20		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3121		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3123		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3124		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3126-29		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	4	
C3130		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C3131		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C3132		ECUM1H271JCN	C.CAPACITOR CH 50V 270P	1	
C3137		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C3138,39		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	2	
C3140		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3141		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C3142		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3145		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3146		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C3147		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C3148		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3149		ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	
C3151		ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C3154		ECUM1H391JCN	C.CAPACITOR CH 50V 390P	1	
C3155		ECCF1H470JC4	C.CAPACITOR 50V 47P	1	
C3156		ECCF1H820JC4	C.CAPACITOR 50V 82P	1	
D3002,03		MA151K	DIODE	2	<R>
D3008		1SS283	DIODE	1	<R>
D3009-11		MA151K	DIODE	3	<R>
D3012		1SS283	DIODE	1	<R>
D3013		1SS99	DIODE	1	<R>
FL3001		VLF0499	FILTER	1	
FL3002		ELB4L121	FILTER	1	
FL3003		VLF0878	FILTER	1	
FL3004		VLF0824	FILTER	1	
FL3005		ELB4M022	FILTER	1	
FL3006		ELB5A066	FILTER	1	
FL3007		ELB4R031	FILTER	1	
FL3008,09		ELB4K114	FILTER	2	
IC3001		NJM2233BMA	IC	1	<R>
IC3002		MC74HC4053F	IC	1	<R>
IC3003		NJM2233BMA	IC	1	<R>
IC3004		VEFH07C	IC	1	<R>
IC3005		M52065FP	IC	1	<R>
IC3006		VEFH05BT	IC	1	<R>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC3007		M52054SP	IC	1	<R>
IC3008		AN6308S	IC	1	<R>
JW3001		ERJ6GEYOR00	M.RESISTOR CH 1/10W 0	1	
L3002		VLQEL05S680J	COIL 68UH	1	
L3003-05		VLQEL05S101J	COIL 100UH	3	
L3006,07		VLP0083	FILTER	2	
L3008		VLQEL05S330J	COIL 33UH	1	
L3009		VLQEL05S220J	COIL 22UH	1	
L3010		VLQEL05S820J	COIL 82UH	1	
L3011		VLQEL05S101J	COIL 100UH	1	
L3012,13		VLQEL05S151J	COIL 150UH	2	
L3014		VLQEL05S101J	COIL 100UH	1	
L3015		VLP0083	FILTER	1	
L3016		VLQEL05S101J	COIL 100UH	1	
L3020,21		VLQEL05S5R6J	COIL 5.6UH	2	
L3022		VLQEL05S101J	COIL 100UH	1	
L3023		VLQEL05S120J	COIL 12UH	1	
L3024		VLQEL05S270J	COIL 27UH	1	
L3025		VLQEL05S681J	COIL 680UH	1	
L3026		VLQEL05S101J	COIL 100UH	1	
L3027,28		VLQEL05S100J	COIL 10UH	2	
L3029		VLQEL05S220J	COIL 22UH	1	
L3030,31		VLQEL05S101J	COIL 100UH	2	
L3034		VLQEL05S6R8J	COIL 6.8UH	1	
L3035		VLQEL05S4R7J	COIL 4.7UH	1	
L3036		VLQEL05S151J	COIL 150UH	1	
L3037		VLQEL05S220J	COIL 22UH	1	
L3038		VLQEL05S681J	COIL 680UH	1	
L3041		VLQEL05S681J	COIL 680UH	1	
L3044		VLQ0163J181	COIL 180UH	1	
P3001		VJP3079	CONNECTOR (MALE)	1	
P3002		VJP3176B064	CONNECTOR (MALE)	1	
Q3001,02		MSD601-R	TRANSISTOR	2	<R>
Q3005		MSD601-R	TRANSISTOR	1	<R>
Q3008		MSC2295-B	TRANSISTOR	1	<R>
Q3009		MSB709-R	TRANSISTOR	1	<R>
Q3010		2SA1022-B	TRANSISTOR	1	(B)<R>
Q3011		MSC2295-B	TRANSISTOR	1	<R>
Q3012		2SD1330	TRANSISTOR	1	<R>
Q3013		MSB709-R	TRANSISTOR	1	<R>
Q3014		MSC2295-B	TRANSISTOR	1	<R>
Q3015,16		MSD601-R	TRANSISTOR	2	<R>
Q3018		MSD601-R	TRANSISTOR	1	<R>
Q3019-21		MSC2295-B	TRANSISTOR	3	<R>
Q3022		MSB709-R	TRANSISTOR	1	<R>
Q3023-25		MSC2295-B	TRANSISTOR	3	<R>
Q3028,29		MSD601-R	TRANSISTOR	2	<R>
Q3030		MSC2295-B	TRANSISTOR	1	<R>
Q3031		MSD601-R	TRANSISTOR	1	<R>
Q3032		MSC2295-B	TRANSISTOR	1	<R>
QR3001-03		MRN1404	TRANSISTOR-RESISTOR	3	<R>
QR3004		UN2110	TRANSISTOR-RESISTOR	1	<R>
QR3005		UN1113	TRANSISTOR-RESISTOR	1	<R>
QR3006		MRN1404	TRANSISTOR-RESISTOR	1	<R>
QR3008		MRN1403	TRANSISTOR-RESISTOR	1	<R>
QR3013,14		MRN1404	TRANSISTOR-RESISTOR	2	<R>
QR3024		MRN1404	TRANSISTOR-RESISTOR	1	<R>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			RESISTORS		
R3001		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3002		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3005		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R3007		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3008		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R3009		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3010		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3011		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R3012		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R3013		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R3014		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3015		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R3016,17		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R3018		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3019		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3020		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3021,22		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
R3023-25		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	3	
R3026		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3027		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3028		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R3029		ERJ6GEYJ112	M.RESISTOR CH 1/10W 1.1K	1	
R3030		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3031		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3032		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R3033		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3034		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3035		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R3036,37		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R3038		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3040		ERJ6GEYG331	M.RESISTOR CH 1/10W 330	1	
R3041		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3042		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R3043		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3044		ERJ6GEYOR00	M.RESISTOR CH 1/10W 0	1	
R3045		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3046		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R3047		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3048		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3049		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3050		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R3051		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3052		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R3053		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3054		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R3055,56		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	2	
R3057		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3058		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3060		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R3063		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3064		ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	1	
R3065,66		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R3067		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3068		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R3073		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R3074		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3075		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3076		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R3077		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R3078		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3079		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3080		ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	1	
R3081		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3082		ERJ6GEYG911	M.RESISTOR CH 1/10W 910	1	
R3085		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3091		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R3092		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3093		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3094-96		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	3	
R3097		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3099		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R3100		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3101,02		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	2	
R3103		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3104		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3105		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3106		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3107		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R3108		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R3109		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3113		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R3114		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R3115,16		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R3119		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3120		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R3121		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R3122		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3123		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3124		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3125		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3126		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R3127		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3128		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R3132		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R3133		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3134		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R3135		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R3136		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3137		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R3138		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3141		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3142		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R3143		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3144		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R3146		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R3147		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R3148		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3149		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R3150		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3151		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R3152		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R3153		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R3154		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3155-58		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	4	
R3161		ERJ6GEYJ221	M.RESISTOR CH 1/10W 220	1	
R3164		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3165		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3169,70		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	2	
R3171		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3172		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R3173		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R3174		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3175		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3176		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3177		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R3178		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R3179		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3180		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3181		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R3182		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3183		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3184		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3185		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R3186		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R3187		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R3189		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R3190		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3191		ERDS2TJ101	C.RESISTOR 1/4W 100	1	
R3192		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
VR3001-04		EVN32CA00B13	V.RESISTOR 1K	4	
VR3005		EVN32CA00B52	V.RESISTOR 500	1	
VR3006		EVMF6SA00B14	V.RESISTOR 10K	1	
VR3007		EVN32CA00B54	V.RESISTOR 50K	1	
VR3008		EVN32CA00B24	VARIABLE 20K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP03983A	P.C.BOARD W/COMPONENT		
			VIDEO 2		
			CAPACITORS		
C8001		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8002		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C8003		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C8004		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C8005		ECEA0JKA221	E.CAPACITOR 6.3V 220U	1	
C8006		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C8007		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C8008		ECEA1HU2R2	E.CAPACITOR 50V 2.2U	1	
C8009		ECEA1HFS4R7	E.CAPACITOR 50V 4.7U	1	
C8010		ECEA1HKA2R2	E.CAPACITOR 50V 2.2U	1	
C8011		ECEA1EU4R7	E.CAPACITOR 25V 4.7U	1	
C8012		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8013		ECQV1H823JZ	P.CAPACITOR 50V 0.082U	1	
C8014,15		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	2	
C8016		ECEA1CU220	E.CAPACITOR 16V 22U	1	
C8018		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C8019,20		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8021		ECEA0JU101	E.CAPACITOR 6.3V 100U	1	
C8022		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C8023		ECV1ZW20X60	V.CAPACITOR 20P	1	
C8024		ECUM1H060DCN	C.CAPACITOR CH 50V 6P	1	
C8025		ECEA1HKA010	E.CAPACITOR 50V 1U	1	
C8026		ECEA1HKA3R3	E.CAPACITOR 50V 3.3U	1	
C8027		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8028		ECEA0JU221	E.CAPACITOR 6.3V 220U	1	
C8029		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	1	
C8030		ECUM1H271JCN	C.CAPACITOR CH 50V 270P	1	
C8031		ECUM1H820JCN	C.CAPACITOR CH 50V 82P	1	
C8032		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C8034-36		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C8037		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C8038		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C8039,40		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8041		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C8042		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8043		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C8044		ECEA1HU4R7	E.CAPACITOR 50V 4.7U	1	
C8045,46		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8047		ECUM1H680JCN	C.CAPACITOR CH 50V 68P	1	
C8048		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C8049		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C8050		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C8051		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C8052		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C8053		ECEA1EU4R7	E.CAPACITOR 25V 4.7U	1	
C8054		ECEA0JN470S	E.CAPACITOR 6.3V 47U	1	
C8055		ECEA1EU4R7	E.CAPACITOR 25V 4.7U	1	
C8056		ECEA1CU220	E.CAPACITOR 16V 22U	1	
C8057		ECUM1H560JCN	C.CAPACITOR CH 50V 56P	1	
C8058		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C8059		ECEA1CU220	E.CAPACITOR 16V 22U	1	
C8060		ECEA1CU101	E.CAPACITOR 16V 100U	1	
C8061		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8062		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C8064		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	1	
C8065		ECEA1CU220	E.CAPACITOR 16V 22U	1	
C8066		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8067		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C8068		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8069		ECUM1H471JCN	C.CAPACITOR CH 50V 470P	1	
C8070		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8071		ECUM1H121JCN	C.CAPACITOR CH 50V 120P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C8072		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C8073,74		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8075		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C8076		ECUM1H223KBN	C.CAPACITOR CH 50V 0.022U	1	
C8077		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8078		ECUM1H471JCN	C.CAPACITOR CH 50V 470P	1	
C8079,80		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8081		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C8082		ECEA1HU3R3	E.CAPACITOR 50V 3.3U	1	
C8083		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C8084-88		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	5	
C8089		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C8090,91		ECEA0JN470S	E.CAPACITOR 6.3V 47U	2	
C8092		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C8093,94		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C8096		ECQB1H562JF	P.CAPACITOR 50V 5600P	1	
C8097		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
D8001		MA151K	DIODE	1	<R>
D8005		MA153	DIODE	1	<R>
D8006		MA3091-M	DIODE	1	<R>
D8007		MA151K	DIODE	1	<R>
D8009,10		MA151K	DIODE	2	<R>
D8011		MA151WK	DIODE	1	<R>
D8012		MA151K	DIODE	1	<R>
D8013		MA151WK	DIODE	1	<R>
DL8001		VLD0147	DELAY LINE	1	
DL8002		VLD0089	DELAY LINE	1	
FL8001		VLD0129	FILTER	1	
FL8002		VLD0153	FILTER	1	
FL8003		VLF0299	FILTER	1	
FL8004		VLD0153	FILTER	1	
FL8005		VLF0727	FILTER	1	
IC8001		VCR0284	IC	1	<R>
IC8002		AN3495K	IC	1	<R>
IC8003		MSM6965-3RS	IC	1	<R>
IC8004,05		NJM2233BMA	IC	2	<R>
L8001-03		VLQEL05S101J	COIL 100UH	3	
L8004		VLQEL05S150J	COIL 15UH	1	
L8005		VLQEL05S330J	COIL 33UH	1	
L8006,07		VLQEL05S101J	COIL 100UH	2	
L8008,09		VLQEL05S681J	COIL 680UH	2	
L8010		VLQEL05S331J	COIL 330UH	1	
L8011		VLQEL05S470J	COIL 47UH	1	
L8012,13		VLQEL05S101J	COIL 100UH	2	
L8015		VLQEL05S101J	COIL 100UH	1	
L8016		VLQEL05S270J	COIL 27UH	1	
L8018		VLQEL05S151J	COIL 150UH	1	
L8019		VLQEL05S101J	COIL 100UH	1	
L8020,21		VLQEL05S150J	COIL 15UH	2	
L8022		VLQEL05S101J	COIL 100UH	1	
P8001		VJP3176B064	CONNECTOR (MALE)	1	
P8002		VJP1230T	CONNECTOR(MALE) 3P	1	
Q8001		2SB644	TRANSISTOR	1	<R>
Q8002		MSB709-R	TRANSISTOR	1	<R>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q8003		MSD601-R	TRANSISTOR	1	<R>
Q8004		MSC2295-B	TRANSISTOR	1	<R>
Q8005		MSD601-R	TRANSISTOR	1	<R>
Q8006-09		MSC2295-B	TRANSISTOR	4	<R>
Q8010		MSD601-R	TRANSISTOR	1	<R>
Q8011		MSC2295-B	TRANSISTOR	1	<R>
Q8012,13		MSD601-R	TRANSISTOR	2	<R>
Q8014		MSC2295-B	TRANSISTOR	1	<R>
Q8015,16		MSD601-R	TRANSISTOR	2	<R>
QR8001		MRN1402	TRANSISTOR-RESISTOR	1	<R>
QR8002		MRN1404	TRANSISTOR-RESISTOR	1	<R>
QR8003		XN1212	TRANSISTOR-TRANSISTOR	1	<R>
QR8004		XN1213	TRANSISTOR-TRANSISTOR	1	<R>
QR8006,07		MRN1404	TRANSISTOR-RESISTOR	2	<R>
QR8008		XN1213	TRANSISTOR-TRANSISTOR	1	<R>
QR8010,11		MRN1402	TRANSISTOR-RESISTOR	2	<R>
QR8012		XN1213	TRANSISTOR-TRANSISTOR	1	<R>
			RESISTORS		
R8001		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R8002		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R8003		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R8004		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R8005		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R8006		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R8007		ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	1	
R8008		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R8009		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R8010		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R8011		ERJ6GEYJ124	M.RESISTOR CH 1/10W 120K	1	
R8012		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R8013		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R8014		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R8015		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R8016,17		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R8019		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R8020		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R8021		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R8022		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R8023		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R8024		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R8025		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R8026		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R8027		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R8028		ERJ6GEYJ153	M.RESISTOR CH 1/10W 15K	1	
R8029		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R8030		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R8031		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R8032		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R8033		ERJ6GEYJ181	M.RESISTOR CH 1/10W 180	1	
R8034,35		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R8036		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R8037		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R8038		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R8039		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R8040		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R8041		ERJ6GEYJ151	M.RESISTOR CH 1/10W 150	1	
R8042		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R8043		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R8045		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R8046		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R8047,48		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R8049		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R8050		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R8051		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R8052		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R8053		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R8054		ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	1	
R8055		ERJ6GEYJ822	M.RESISTOR CH 1/10W 8.2K	1	
R8056		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R8057		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R8058		ERJ6GEYJ153	M.RESISTOR CH 1/10W 15K	1	
R8060		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R8061		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R8062		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R8063		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R8064		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R8065		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R8066		ERJ6GEYJ271	M.RESISTOR CH 1/10W 270	1	
R8067		ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	1	
R8068,69		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
R8070		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R8071		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R8072		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R8073		ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	1	
R8074		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R8075		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R8076,77		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R8078,79		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	2	
R8080		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R8081		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R8082		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R8083		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R8084		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R8085		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R8086		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R8087		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R8088		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R8089		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R8090		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R8091		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R8092		ERJ6GEYG911	M.RESISTOR CH 1/10W 910	1	
R8093,94		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R8095		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R8096		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R8097		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R8098		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R8099		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R8100		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R8101		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R8102		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R8103		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R8104		ERJ6GEYJ824	M.RESISTOR CH 1/10W 820K	1	
VR8001		EVN32CA00B23	V.RESISTOR 2K	1	
VR8002		EVN32CA00B24	VARIABLE 20K	1	
VR8003		EVN32CA00B52	V.RESISTOR 500	1	
VR8004		EVN32CA00B13	V.RESISTOR 1K	1	
VR8005		EVN32CA00B14	V.RESISTOR 10K	1	
X8001		VSX0406	CRYSTAL OSCILLATOR	1	<R>
X8002		VSX0225	CRYSTAL OSCILLATOR	1	<R>
	■	VEP03984A	P.C.BOARD W/COMPONENT		INCLUDING THE
			VIDEO 3		DIGITAL DELAY
					(VEP03968A)
	■	VEP03968A	P.C.BOARD W/COMPONENT		PARTS LIST IS
			DIGITAL DELAY		INCLUDED IN VIDEO 3
					(VEP03984A)
			CAPACITORS		
C3501		ECEA1CU330	E.CAPACITOR 16V 33U	1	
C3502		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3503		ECUM1H060DCN	C.CAPACITOR CH 50V 6P	1	
C3504		ECEA1CU100	E.CAPACITOR 16V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3505		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3506		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3507		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3509,10		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3513		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C3514		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3515		ECEA1CU220	E.CAPACITOR 16V 22U	1	
C3516		ECEA1HU3R3	E.CAPACITOR 50V 3.3U	1	
C3517		ECEA1HN3R3S	E.CAPACITOR 50V 3.3U	1	
C3518		ECEA1HU4R7	E.CAPACITOR 50V 4.7U	1	
C3519		ECEA1HU010	E.CAPACITOR 50V 1U	1	
C3520		ECEA0JU101	E.CAPACITOR 6.3V 100U	1	
C3521,22		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3523		ECEA0JU101	E.CAPACITOR 6.3V 100U	1	
C3524-26		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C3527		ECEA1CN470S	E.CAPACITOR 16V 47U	1	
C3528		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3529		ECEA1VU220	E.CAPACITOR 35V 22U	1	
C3530		ECEA1HU100	E.CAPACITOR 50V 10U	1	
C3531		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3532		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3533		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3534		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C3535		ECEA1HU4R7	E.CAPACITOR 50V 4.7U	1	
C3536		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3537		ECQP1H392JZ	P.CAPACITOR 50V 3900P	1	
C3538		ECEA1HKGR68	E.CAPACITOR 50V 0.68U	1	
C3539		ECQB1H152JZ	P.CAPACITOR 50V 1500P	1	
C3540		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3541		ECUM1H821JCN	C.CAPACITOR CH 50V 820P	1	
C3542		ECEA1HU4R7	E.CAPACITOR 50V 4.7U	1	
C3543		ECEA1HU010	E.CAPACITOR 50V 1U	1	
C3544		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3545		ECQB1H683JF	P.CAPACITOR 50V 0.068U	1	
C3546		ECUM1H471JCN	C.CAPACITOR CH 50V 470P	1	
C3547		ECUM1H561JCN	C.CAPACITOR CH 50V 560P	1	
C3548		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C3549		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3550		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3551		ECEA1HUR22	E.CAPACITOR 50V 0.22U	1	
C3555		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3556		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3557		ECV1ZW40X60	V.CAPACITOR 40P	1	
C3558		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C3559		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3560		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C3563		ECEA1HU4R7	E.CAPACITOR 50V 4.7U	1	
C3564,65		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3566		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3567,68		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	2	
C3569		ECUM1H121JCN	C.CAPACITOR CH 50V 120P	1	
C3570,71		ECUM1H561JCN	C.CAPACITOR CH 50V 560P	2	
C3572,73		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	2	
C3576		ECEA1HU4R7	E.CAPACITOR 50V 4.7U	1	
C3577		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3578		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3579		ECEA1HU2R2	E.CAPACITOR 50V 2.2U	1	
C3580		ECEA1HU4R7	E.CAPACITOR 50V 4.7U	1	
C3581		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C3582		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3583		ECUM1H150JCN	C.CAPACITOR CH 50V 15P	1	
C3584		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3585		ECEA1CU220	E.CAPACITOR 16V 22U	1	
C3586		ECEA1HU010	E.CAPACITOR 50V 1U	1	
C3587,88		ECEA1CU470	E.CAPACITOR 16V 47U	2	
C3589		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3590		ECUM1H180JCN	C.CAPACITOR CH 50V 18P	1	
C3591		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3592		ECUM1H470JCN	C.CAPACITOR CH 50V 47P	1	
C3593		ECUM1H270JCN	C.CAPACITOR CH 50V 27P	1	
C3594		ECEA1HU4R7	E.CAPACITOR 50V 4.7U	1	
C3595		ECEA1HU010	E.CAPACITOR 50V 1U	1	
C3596		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3597		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3598		ECEA1CU100	E.CAPACITOR 16V 10U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C3599		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C3600		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C3601		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C3602-04		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C3605		ECEA0JU221	E.CAPACITOR 6.3V 220U	1	
C3606-08		ECEA1CU100	E.CAPACITOR 16V 10U	3	
C3609		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3610		ECEA0JU101	E.CAPACITOR 6.3V 100U	1	
C3611		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C3612		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3614		ECEA1CU330	E.CAPACITOR 16V 33U	1	
C3615		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3616		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3617		ECEA1CU101	E.CAPACITOR 16V 100U	1	
C3618,19		ECEA1CU470	E.CAPACITOR 16V 47U	2	
C3620		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3621		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3622,23		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C3624		ECEA1CU100	E.CAPACITOR 16V 10U	1	
C3625		ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	
C3626		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3627		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C3628		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C3629		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C8001,02		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C8003		ECEV0JA470	E.CAPACITOR 6.3V 47U	1	
C8004-06		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	3	
C8007		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C8008,09		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
C8010		ECEV1CA100	E.CAPACITOR 16V 10U	1	
C8011		ECEV1HA2R2	E.CAPACITOR 50V 2.2U	1	
C8012		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8013,14		ECUX1H150JCV	C.CAPACITOR 50V 15P	2	
C8015		ECEV1HAN010R	E.CAPACITOR 50V 1U	1	
C8016		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8017		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C8018		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	1	
C8020-23		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	4	
C8024		ECEV0JA220	E.CAPACITOR 6.3V 22U	1	
C8025,26		ECUX1H103ZFV	C.CAPACITOR CH 50V 0.01U	2	
D3501		MA3200-M	DIODE	1	<R>
D3502		MA151K	DIODE	1	<R>
D3503		MA28W-AB	DIODE	1	<R>
D3504-08		MA151K	DIODE	5	<R>
D8001		MA28W-A	DIODE	1	<R>
FL3501		VLF0838	FILTER	1	
FL3502-04		VLF0839	FILTER	3	
FL8001,02		VLF0526	FILTER	2	
FL8003,04		VLF0523	FILTER	2	
IC3501		AN3916	IC	1	<R>
IC3502		UPC78L05J	IC	1	<R>
IC3503		M52065FP	IC	1	<R>
IC3504		MC74HC4053F	IC	1	<R>
IC3505		UPC78L05J	IC	1	<R>
IC3506		AN3296S	IC	1	<R>
IC3507		MN1280P	IC	1	<R>
IC3508		M50554-001SP	IC	1	<R>
IC3509		UPC78L05J	IC	1	<R>
IC3510		UPD4066BG	IC	1	<R>
IC3511		AN3581S	IC	1	<R>
IC3512		TC4W53F	IC	1	<R>
IC3513		MC14577AF	IC	1	<R>
IC3514		AN608P	IC	1	<R>
IC3515		VCR0373	IC	1	<R>
IC8001		CXD1175AM	IC	1	<R>
IC8002		HM63021FP	IC	1	<R>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC8003		MB40778PF	IC	1	<R>
IC8004		MC74HC541F	IC	1	<R>
IC8005		TC7WU04F	IC	1	<R>
IC8006		MC74HC74AF	IC	1	<R>
IC8007		TC7S32F	IC	1	<R>
IC8008		MC74HC00AF	IC	1	<R>
J3501		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
L3501		VLQEL05S101J	COIL 100UH	1	
L3503		VLQEL05S101J	COIL 100UH	1	
L3504		VLQEL05S120J	COIL 12UH	1	
L3505-07		VLQEL05S101J	COIL 100UH	3	
L3509		VLQEL05S470J	COIL 47UH	1	
L3510		VLQEL05S180J	COIL 18UH	1	
L3511		VLQEL05S101J	COIL 100UH	1	
L3512		VLQEL05S560J	COIL 56UH	1	
L3513-17		VLQEL05S101J	COIL 100UH	5	
L3518		VLQEL05S3R3J	COIL 3.3UH	1	
L3519		VLQEL05S101J	COIL 100UH	1	
L3520		VLP0083	FILTER	1	
L8001		VLQ0319K470	COIL 47UH	1	
L8002,03		VLQ0319K101	COIL 100UH	2	
P3501		VJP3176B064	CONNECTOR (MALE)	1	
P3502,03		VJP2776	CONNECTOR(MALE)	2	
P8001,02		VJS2776	CONNECTOR (FEMALE)	2	
Q3501		MSD601-R	TRANSISTOR	1	<R>
Q3502-04		2SA1022-B	TRANSISTOR	3	(B)<R>
Q3508		MSD601-R	TRANSISTOR	1	<R>
Q3509,10		MSB709-R	TRANSISTOR	2	<R>
Q3511		MSD601-R	TRANSISTOR	1	<R>
Q3512		MSB709-R	TRANSISTOR	1	<R>
Q3513		MSD601-R	TRANSISTOR	1	<R>
Q3514		MSB709-R	TRANSISTOR	1	<R>
Q3515,16		MSD601-R	TRANSISTOR	2	<R>
Q3517		2SD1328-R	TRANSISTOR CHIP	1	(Q,R)<R>
Q3518,19		MSD601-R	TRANSISTOR	2	<R>
Q3520		MSB709-R	TRANSISTOR	1	<R>
Q3521-24		MSD601-R	TRANSISTOR	4	<R>
Q3525		MSC2295-B	TRANSISTOR	1	<R>
Q3526		2SA1022-B	TRANSISTOR	1	(B)<R>
Q3527		MSB709-R	TRANSISTOR	1	<R>
Q3528-32		MSD601-R	TRANSISTOR	5	<R>
Q3533		MSC2295-B	TRANSISTOR	1	<R>
Q3534		2SA1022-B	TRANSISTOR	1	(B)<R>
Q3535		MSB709-R	TRANSISTOR	1	<R>
Q3536-38		MSD601-R	TRANSISTOR	3	<R>
Q3539,40		MSB709-R	TRANSISTOR	2	<R>
Q8001		XN4501	TRANSISTOR	1	<R>
QR3501		XN1501	TRANSISTOR-TRANSISTOR	1	<R>
QR3502-04		MRN1404	TRANSISTOR-RESISTOR	3	<R>
QR3505,06		XN1213	TRANSISTOR-TRANSISTOR	2	<R>
QR3507,08		MRN1404	TRANSISTOR-RESISTOR	2	<R>
QR8001		UN5213	TRANSISTOR-RESISTOR	1	<R>
			RESISTORS		
R3502,03		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
R3504,05		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R3506,07		ERJ6GEYG511	M.RESISTOR CH 1/10W 510	2	
R3508		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3509		ERJ6GEYG181	M.RESISTOR CH 1/10W 180	1	
R3510		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R3511		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3512		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R3513,14		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R3515-17		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	3	
R3519		ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	1	
R3520		ERJ6GEYG151	M.RESISTOR CH 1/10W 150	1	
R3521		ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R3522		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3523		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3527		ERJ6GEYG183	M.RESISTOR CH 1/10W 18K	1	
R3528		ERJ6GEYJ181	M.RESISTOR CH 1/10W 180	1	
R3529		ERJ6GEYJ821	M.RESISTOR CH 1/10W 820	1	
R3530		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3531		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3532		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R3533		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R3534		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R3535		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R3536		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3537		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3538		ERJ6GEYG152	M.RESISTOR CH 1/10W 1.5K	1	
R3539		ERJ6GEYG511	M.RESISTOR CH 1/10W 510	1	
R3542		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3543		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3544		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R3545		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3546		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3547		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R3548		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3549		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R3550		ERJ6GEYG473	M.RESISTOR CH 1/10W 47K	1	
R3551		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3552		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R3553		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R3554		ERJ6GEYJ153	M.RESISTOR CH 1/10W 15K	1	
R3555		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R3556		ERJ6GEYJ683	M.RESISTOR CH 1/10W 68K	1	
R3557		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3558		ERJ6GEYJ564	M.RESISTOR CH 1/10W 560K	1	
R3559		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3560		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R3561		ERJ6GEYJ684	M.RESISTOR CH 1/10W 680K	1	
R3562		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3563		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3564		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3565		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3566		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3567		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3568		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3569		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R3574,75		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R3577		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3578		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R3579		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3580		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R3581		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3582		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3583		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R3584		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3585,86		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R3587		ERJ6GEYJ273	M.RESISTOR CH 1/10W 27K	1	
R3588		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3589		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R3590		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R3591		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R3592		ERJ6GEYJ151	M.RESISTOR CH 1/10W 150	1	
R3593,94		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R3595-97		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	3	
R3598-01		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	4	
R3602		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3603		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3604		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R3605		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3606-08		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	3	
R3609		ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	1	
R3610		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3611		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R3612,13		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R3614		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R3615		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R3616		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R3617		ERJ6GEYJ105	M.RESISTOR CH 1/10W 1M	1	
R3618		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3619		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	1	
R3620		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R3621		ERJ6GEYJ330	M.RESISTOR CH 1/10W 33	1	
R3622,23		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R3624		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3625		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R3626		ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	1	
R3627		ERJ6GEYG682	M.REISITOR CH 1/10W 6.8K	1	
R3628		ERJ6GEYG822	M.RESISTOR CH 1/10W 8.2K	1	
R3629,30		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	2	
R3631		ERJ6GEYJ391	M.RESISTOR CH 1/10W 390	1	
R3632		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R3633		ERJ6GEYG333	M.RESISTOR CH 1/10W 33K	1	
R3634		ERJ6GEYG133	M.RESISTOR CH 1/10W 13K	1	
R3635		ERJ6GEYG122	M.RESISTOR CH 1/10W 1.2K	1	
R3636		ERJ6GEYG561	M.RESISTOR CH 1/10W 560	1	
R3637		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R3638		ERJ6GEYG821	M.RESISTOR CH 1/10W 820	1	
R3639		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R3640		ERJ6GEYJ563	M.RESISTOR CH 1/10W 56K	1	
R3641,42		ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	2	
R3644		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R3646-48		ERJ6GEYG750	M.RESISTOR CH 1/10W 75	3	
R3649		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R3650		ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R3651		ERJ6GEYG112	M.RESISTOR CH 1/10W 1.1K	1	
R3652		ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R3653		ERJ6GEYG471	M.RESISTOR CH 1/10W 470	1	
R3654		ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R3655		ERJ6GEYJ474	M.RESISTOR CH 1/10W 470K	1	
R3656,57		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	2	
R3658		ERJ6GEYG561	M.RESISTOR CH 1/10W 560	1	
R3659		ERJ6GEYG511	M.RESISTOR CH 1/10W 510	1	
R3660		ERJ6GEYG123	M.RESISTOR CH 1/10W 12K	1	
R3661		ERJ6GEYG562	M.RESISTOR CH 1/10W 5.6K	1	
R3662		ERJ6GEYG561	M.RESISTOR CH 1/10W 560	1	
R3663		ERJ6GEYG122	M.RESISTOR CH 1/10W 1.2K	1	
R3666		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3667		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R3668		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R3669		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R3670		ERJ6GEYJ393	M.RESISTOR CH 1/10W 39K	1	
R3671		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R3672		ERJ6GEYJ753	M.RESISTOR CH 1/10W 75K	1	
R3673		ERJ6GEYG113	M.RESISTOR CH 1/10W 11K	1	
R3674		ERJ6GEYJ681	M.RESISTOR CH 1/10W 680	1	
R3675		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R3676		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
R3677,78		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R8001		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R8002,03		ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	2	
R8004		ERJ3GEYG103	M.RESISTOR CH 1/16W 10K	1	
R8005		ERJ3GEYG393	M.RESISTOR CH 1/16W 39K	1	
R8006		ERJ3GEYJ101	M.RESISTOR CH 1/16W 100	1	
R8007		ERJ3GEYJ105	M.RESISTOR CH 1/16W 1M	1	
R8008		ERJ3GEYJ100	M.RESISTOR CH 1/16W 10	1	
R8009		ERJ3GEYJ221	M.RESISTOR CH 1/16W 220	1	
R8010		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R8011		ERJ3GEYG302	M.RESISTOR CH 1/16W 3K	1	
R8012		ERJ3GEYG103	M.RESISTOR CH 1/16W 10K	1	
R8017,18		ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	2	
R8019,20		ERJ3GEYJ103	M.RESISTOR CH 1/16W 10K	2	
R8021		ERJ3GEYJ104	M.RESISTOR CH 1/16W 100K	1	
R8022-33		ERJ3GEYJ680	M.RESISTOR CH 1/16W 68	12	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
SW3501		VSS0126	SWITCH	1	<R>
VR3501		EVN32CA00B24	VARIABLE 20K	1	
VR3502		EVN32CA00B52	V.RESISTOR 500	1	
VR3503		EVN32CA00B13	V.RESISTOR 1K	1	
VR3505,06		EVN32CA00B13	V.RESISTOR 1K	2	
X3501		VSX0316	CRYSTAL OSCILLATOR	1	<R>
X8001		VSX0540	CRYSTAL OSCILLATOR	1	<R>
			MISCELLANEOUS		
E48		VSC2911	SHIELD CASE	2	
E49		VSC2912	SHIELD CASE	1	
	■	VEP04389C	P.C.BOARD W/COMPONENT AUDIO		
			CAPACITORS		
C4002		ECUM1H681JCN	C.CAPACITOR CH 50V 680P	1	
C4003,04		ECEA16M10	E.CAPACITOR 16V	2	
C4005		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4006		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C4007		ECEA16M10	E.CAPACITOR 16V	1	
C4009		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4010		ECQB1H103JF	P.CAPACITOR 50V 0.01U	1	
C4011		ECUM1H472KBN	C.CAPACITOR CH 50V 4700P	1	
C4012		ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C4013		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C4014		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C4015,16		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C4017		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C4018		ECQB1H103JF	P.CAPACITOR 50V 0.01U	1	
C4019		ECQB1H562JF	P.CAPACITOR 50V 5600P	1	
C4020		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	1	
C4022		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C4023		ECEA1HKA010	E.CAPACITOR 50V 1U	1	
C4024		ECEA1CU471	E.CAPACITOR 16V 470U	1	
C4025		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C4026		ECEA16M33	E.CAPACITOR 16V 33U	1	
C4027		ECQB1H153JF	P.CAPACITOR 50V 0.015U	1	
C4028		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4029		ECQP1332JZ	P.CAPACITOR 100V 4700P	1	
C4031		ECCD2H121J	C.CAPACITOR 500V 120P	1	
C4032		ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C4033		ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C4035		ECUM1H103KBN	C.CAPACITOR CH 50V 0.01U	1	
C4037		ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C4039		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C4040		ECUM1H102JCN	C.CAPACITOR CH 50V 1000P	1	
D4001		11EQS04	DIODE	1	<R>
D4002		MA165VT	DIODE	1	<R>
D4003		MA151WK	DIODE	1	<R>
D4005		MA721	DIODE	1	<R>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC4001		BA7766AS	IC	1	<R>
L4001		VLQEL05S471K	COIL 470UH	1	
L4002		VLQEL07F822J	COIL 8200UH	1	
P4001		VJP3176B032	CONNECTOR (MALE)	1	
P4003		VJP1231T	CONNECTOR(MALE) 4P	1	
Q4002		2SD639-R	TRANSISTOR	1	<R>
Q4003,04		2SD1149-R	TRANSISTOR	2	<R>
Q4005		2SB710A-R	TRANSISTOR	1	<R>
Q4006		2SD1328-R	TRANSISTOR CHIP	1	(R,S)<R>
Q4007		MSB709-R	TRANSISTOR	1	<R>
Q4008		2SD1328-R	TRANSISTOR CHIP	1	(R,S)<R>
QR4001		MRN1404	TRANSISTOR-RESISTOR	1	<R>
QR4005		MRN1404	TRANSISTOR-RESISTOR	1	<R>
			RESISTORS		
R4002		ERJ6GEYJ683	M.RESISTOR CH 1/10W 68K	1	
R4003		ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R4004		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R4005		ERJ6GEYJ181	M.RESISTOR CH 1/10W 180	1	
R4006		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R4008		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R4009		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R4010		ERJ6GEYG392	M.RESISTOR CH 1/10W 3.9K	1	
R4011		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R4012		ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	1	
R4013		ERJ6GEYJ334	M.RESISTOR CH 1/10W 330K	1	
R4014		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R4015		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R4016		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R4017		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R4018		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R4019		ERJ6GEYG303	M.RESISTOR CH 1/10W 30K	1	
R4020,21		ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	2	
R4022		ERJ6GEYG473	M.RESISTOR CH 1/10W 47K	1	
R4023		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R4024		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R4025		ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R4026		ERJ6GEYJ154	M.RESISTOR CH 1/10W 150K	1	
R4027,28		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	2	
R4030		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R4031		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R4033		ERJ6GEYJ561	M.RESISTOR CH 1/10W 560	1	
R4034		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R4035		ERJ6GEYJ683	M.RESISTOR CH 1/10W 68K	1	
R4036		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R4037		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R4038		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R4039		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R4042		ERJ6GEYJ100	M.RESISTOR CH 1/10W 10	1	
R4046		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R4050		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R4051		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R4053,54		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R4056		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R4057		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
T4001		EIQ7QF014Q	TRANSFORMER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
VR4001		EVN32CA00B14	V.RESISTOR 10K	1	
VR4002		EVN32CA00B25	V.RESISTOR 200K	1	
	■	VEP05162G	P.C.BOARD W/COMPONENT		
			HEAD AMP		
			CAPACITORS		
C5001		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C5002,03		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C5004		ECEA1HKA010	E.CAPACITOR 50V 1U	1	
C5005		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C5007,08		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C5009		ECUM1H332KBN	C.CAPACITOR CH 50V 3300P	1	
C5010		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C5011		ECEA1CKA220	E.CAPACITOR 16V 22U	1	
C5012		ECUM1H473ZFN	C.CAPACITOR CH 50V 0.047U	1	
C5013		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C5014		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C5015		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C5016		ECEA1EKA4R7	E.CAPACITOR 25V 4.7U	1	
C5017		ECUM1H020DCN	C.CAPACITOR CH 50V 2P	1	
C5018,19		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	2	
C5020		ECEA1EKA4R7	E.CAPACITOR 25V 4.7U	1	
C5021		ECUM1H020DCN	C.CAPACITOR CH 50V 2P	1	
C5022		ECEA1EKA4R7	E.CAPACITOR 25V 4.7U	1	
C5024,25		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C5027		ECEA1EKA4R7	E.CAPACITOR 25V 4.7U	1	
C5028		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C5029		ECUM1H102KBN	C.CAPACITOR CH 50V 1000P	1	
C5031		ECUM1H104ZFN	C.CAPACITOR CH 50V 0.1U	1	
C5066		ECUM1C224ZFN	C.CAPACITOR CH 16V 0.22U	1	
D5001,02		MA151K	DIODE	2	<R>
IC5001		AN3334K	IC	1	<R>
L5001,02		VLQ0460	COIL	2	
P5001		VJP3091	CONNECTOR (MALE)	1	
P5002		VJS2603	CONNECTOR (FEMALE)	1	
P5003		VJP1243T	CONNECTOR(MALE) 3P	1	
Q5001		MSB709-R	TRANSISTOR	1	<R>
Q5002		MSC2295-B	TRANSISTOR	1	<R>
Q5004		MSC2295-B	TRANSISTOR	1	<R>
QR5001		MRN1404	TRANSISTOR-RESISTOR	1	<R>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			RESISTORS		
R5001		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R5003		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R5004		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R5005		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R5006		ERJ6GEYJ152	M.RESISTOR CH 1/10W 1.5K	1	
R5007		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R5009		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R5010		ERJ6GEYK1R0	M.RESISTOR CH 1/10W 1.0	1	
R5011-14		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	4	
R5015-18		ERJ6GEYJ100	M.RESISTOR CH 1/10W 10	4	
R5019		ERJ6GEYJ331	M.RESISTOR CH 1/10W 330	1	
R5020,21		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	2	
R5037,38		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	
R5042,43		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	
R5046,47		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	
R5058		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
VR5001,02		EVN32CA00B23	V.RESISTOR 2K	2	
			MISCELLANEOUS		
E50		VSC3119	SHIELD COVER (MIDDLE)	1	
E51		VSC3039	SHIELD COVER (FRONT)	1	
E52		VSC3040	SHIELD COVER (REAR)	1	
E53		VJF0215	BINDER	1	
	■	VEP06826F	P.C.BOARD W/COMPONENT		
			FRONT 1		
BZ6601		VSQ0813	BUZZER	1	
			CAPACITORS		
C1,C2		ECEA1CKS100	E.CAPACITOR 16V 10U	2	
C6601		ECUM1H220JCN	C.CAPACITOR CH 50V 22P	1	
C6602		ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	
C6603		ECEA1AKS221	E.CAPACITOR 10V 220U	1	
C6604		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6605		ECEA1HKSR22	E.CAPACITOR 50V 0.22U	1	
C6606		ECEA1CKS330	E.CAPACITOR 16V 33U	1	
C6607		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C6608		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6610		ECEA1HKS220	E.CAPACITOR 50V 22U	1	
C6611		ECUM1H221JCN	C.CAPACITOR CH 50V 220P	1	
C6612		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6613		ECEA1AKS221	E.CAPACITOR 10V 220U	1	
C6614-16		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	3	
C6617		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
CT6601,02		ECRHA030E41	TRIMMER 3P	2	
D1,D2		MA165VT	DIODE	2	<R>
D6601		MA4075	DIODE	1	<R>
D6606,07		MA151K	DIODE	2	<R>
D6608-12		MA152K	DIODE	5	<R>
D6613-15		MA151K	DIODE	3	<R>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
DP6601		VSL0132	DISPLAY TUBE	1	
IC1		UPD4538BC	IC	1	<R>
IC6601		UPD75238J053	IC	1	<R>
IC6602		UPD6252GS	IC	1	<R>
IC6603		MN1280L	IC	1	<R>
IC6604		MN1280R	IC	1	<R>
IC6606		MC74HC4053F	IC	1	<R>
J6602,03		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	2	
P6601-03		VJP3152	CONNECTOR (MALE)	3	
P6604		VJP2652	CONNECTOR	1	
Q6601,02		MSD602-R	TRANSISTOR	2	<R>
Q6606		MSB709-R	TRANSISTOR	1	<R>
QR1		UN1211	TRANSISTOR-RESISTOR	1	<R>
QR6601		MRN1404	TRANSISTOR-RESISTOR	1	<R>
QR6602,03		MRN2404	TRANSISTOR-RESISTOR	2	<R>
QR6604		MRN1404	TRANSISTOR-RESISTOR	1	<R>
			RESISTORS		
R1,R2		ERDS2TJ154	C.RESISTOR 1/4W 150K	2	
R3		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R4		ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R6601		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6603		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R6604,05		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	2	
R6607,08		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R6609		ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R6610		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R6611-13		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	3	
R6614-21		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	8	
R6622-35		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	14	
R6636		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R6637		ERJ6GEYJ332	M.RESISTOR CH 1/10W 3.3K	1	
R6638-41		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	4	
R6642		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6643		ERJ6GEYJ224	M.RESISTOR CH 1/10W 220K	1	
R6644		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R6645-53		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	9	
R6655		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R6656		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6657-61		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	5	
R6662		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R6663		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
SW6601-03		EVQQS205K	SWITCH	3	<R>
X6601		VSX0140	CRYSTAL OSCILLATOR	1	<R>
X6602		VSX0094	CRYSTAL OSCILLATOR	1	<R>
			MISCELLANEOUS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
E58		VJF0398	FIP HOLDER	1	
	■	VEP06827D	P.C.BOARD W/COMPONENT		
			SYSCON		
			CAPACITORS		
C2501		ECQB1H473JF	P.CAPACITOR 50V 0.047U	1	
C2502		ECQB1H222JF	P.CAPACITOR 50V 2200P	1	
C2503		ECQB1H273JF	P.CAPACITOR 50V 0.027U	1	
C2504		ECQB1H222JF	P.CAPACITOR 50V 2200P	1	
C2510		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C2512-14		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	3	
C2516-19		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	4	
C6001		ECEA1AKA220	E.CAPACITOR 10V 22U	1	
C6002,03		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	2	
C6004		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6005		ECUM1H182KBN	C.CAPACITOR CH 50V 1800P	1	
C6006		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C6007,08		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C6009		ECEA1EKA4R7	E.CAPACITOR 25V 4.7U	1	
C6010		ECQB1H104JF	P.CAPACITOR 50V 0.1U	1	
C6011		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6013,14		ECUM1H101JCN	C.CAPACITOR CH 50V 100P	2	
C6036		ECEA1CU222	E.CAPACITOR 16V 2200U	1	
C6038,39		ECEA0JU332	E.CAPACITOR 6.3V 3300U	2	
C6040		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6041		ECEA1HKA010	E.CAPACITOR 50V 1U	1	
C6042		ECEA0JKA470	E.CAPACITOR 6.3V 47U	1	
C6043		ECUM1E104ZFN	C.CAPACITOR CH 25V 0.1U	1	
C6044-46		ECQB1H102JF	P.CAPACITOR 50V 1000P	3	
C6047		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C6048		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6049		ECQB1H102JF	P.CAPACITOR 50V 1000P	1	
C6050		ECUM1H151JCN	C.CAPACITOR CH 50V 150P	1	
C6051		ECEA1CU331	E.CAPACITOR 16V 330U	1	
C6052		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6053,54		ECEA1CKA100	E.CAPACITOR 16V 10U	2	
C6055		ECEA1CKA470	E.CAPACITOR 16V 47U	1	
C6056,57		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	2	
C6058		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6059		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C6060		ECEA1HKAR47	E.CAPACITOR 50V 0.47U	1	
C6061,62		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C6064		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	1	
C6065		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C6201,02		ECUM1H103ZFN	C.CAPACITOR CH 50V 0.01U	2	
C6203		ECEA0JKS330	E.CAPACITOR 6.3V 33U	1	
D2501,02		MA151K	DIODE	2	<R>
D6001-04		MA151K	DIODE	4	<R>
D6007,08		11EQS04	DIODE	2	<R>
D6009		MA151K	DIODE	1	<R>
D6010		MA170	DIODE	1	<R>
D6201		MA151K	DIODE	1	<R>
FL6001		VLF0634	FILTER	1	
IC2501,02		LM324NS	IC	2	<R>
IC2503		LM393PS	IC	1	<R>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC2505		MC14053BF	IC	1	(R)<R>
IC2506		MC14052BF	IC	1	<R>
IC2507		MC14053BF	IC	1	(R)<R>
IC6001		MN188166VMCG	IC	1	<R>
IC6002		MN1280R	IC	1	<R>
IC6003		MN1280-U	IC	1	<R>
IC6004		LM393PS	IC	1	<R>
IC6005		UPD4019BG	IC	1	<R>
IC6006		LM393PS	IC	1	<R>
IC6007		MC14053BF	IC	1	(R)<R>
IC6008		MC14001BF	IC	1	<R>
IC6009		MC14538BF	IC	1	<R>
IC6010		M54649L	IC	1	<R>
IC6011		LM324NS	IC	1	<R>
IC6201,02		MC74HC373F	IC	2	<R>
J10		ERJ6GEY0R00	M.RESISTOR CH 1/10W 0	1	
L2502		VLQ0460	COIL	1	
L6001		VLQ0460	COIL	1	
P6002		VJP3176B064	CONNECTOR (MALE)	1	
P6003		VJS2163W	CONNECTOR (FEMALE)	1	
Q6001		2SD973	TRANSISTOR	1	<R>
Q6002		MSB709-R	TRANSISTOR	1	<R>
Q6003		2SB819-P	TRANSISTOR	1	<R>
Q6004		MSD601-R	TRANSISTOR	1	<R>
Q6005		2SB819-P	TRANSISTOR	1	<R>
Q6006-08		MSD601-R	TRANSISTOR	3	<R>
QR2501-05		MRN1404	TRANSISTOR-RESISTOR	5	<R>
QR6001		MRN2402	TRANSISTOR-RESISTOR	1	<R>
QR6002		MRN1403	TRANSISTOR-RESISTOR	1	<R>
QR6003,04		MRN2402	TRANSISTOR-RESISTOR	2	<R>
QR6005-09		MRN1402	TRANSISTOR-RESISTOR	5	<R>
QR6201-04		MRN1402	TRANSISTOR-RESISTOR	4	<R>
QR6205		MRN2404	TRANSISTOR-RESISTOR	1	<R>
QR6206,07		MRN1402	TRANSISTOR-RESISTOR	2	<R>
QR6208		MRN2404	TRANSISTOR-RESISTOR	1	<R>
QR6209		UN2216	TRANSISTOR	1	<R>
QR6210		MRN1402	TRANSISTOR-RESISTOR	1	<R>
			RESISTORS		
R2501		ERJ6GEYJ682	M.RESISTOR CH 1/10W 6.8K	1	
R2502		ERJ6GEYJ334	M.RESISTOR CH 1/10W 330K	1	
R2503		ERJ6GEYJ274	M.RESISTOR CH 1/10W 270K	1	
R2504		ERJ6GEYJ123	M.RESISTOR CH 1/10W 12K	1	
R2505		ERJ6GEYJ334	M.RESISTOR CH 1/10W 330K	1	
R2506		ERJ6GEYJ154	M.RESISTOR CH 1/10W 150K	1	
R2507-10		ERJ6GEYG104	M.RESISTOR CH 1/10W 100K	4	
R2511-15		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	5	
R2516		ERJ6GEYG393	M.RESISTOR CH 1/10W 39K	1	
R2517		ERJ6GEYG223	M.RESISTOR CH 1/10W 22K	1	
R2518-20		ERJ6GEYG124	M.RESISTOR CH 1/10W 120K	3	
R2521		ERJ6GEYG154	M.RESISTOR CH 1/10W 150K	1	
R2522		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R2523,24		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	2	
R2525		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R2526		ERJ6GEYJ823	M.RESISTOR CH 1/10W 82K	1	
R2528		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R6001		ERJ6GEYJ101	M.RESISTOR CH 1/10W 100	1	
R6002		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6003		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R6004		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6005		ERJ6GEYJ564	M.RESISTOR CH 1/10W 560K	1	
R6006		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6007		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6008		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R6009		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6010		ERJ6GEYJ333	M.RESISTOR CH 1/10W 33K	1	
R6011		ERJ6GEYJ105	M.RESISTOR CH 1/10W 1M	1	
R6012,13		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R6014-18		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	5	
R6019		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6020,21		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	2	
R6022-26		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	5	
R6027,28		ERJ6GEYJ153	M.RESISTOR CH 1/10W 15K	2	
R6029		ERJ6GEYJ181	M.RESISTOR CH 1/10W 180	1	
R6030		ERJ6GEYJ182	M.RESISTOR CH 1/10W 1.8K	1	
R6031		ERJ6GEYJ122	M.RESISTOR CH 1/10W 1.2K	1	
R6032-34		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	3	
R6035		ERD2FCG220	C.RESISTOR 2W 22	1	
R6036		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6037		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R6038		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R6039,40		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	2	
R6041		ERJ6GEYJ272	M.RESISTOR CH 1/10W 2.7K	1	
R6042		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R6043		ERJ6GEYJ471	M.RESISTOR CH 1/10W 470	1	
R6044		ERJ6GEYJ104	M.RESISTOR CH 1/10W 100K	1	
R6045,46		ERJ6GEYJ473	M.RESISTOR CH 1/10W 47K	2	
R6047		ERJ6GEYG682	M.REISITOR CH 1/10W 6.8K	1	
R6048		ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R6049		ERJ6GEYG302	M.RESISTOR CH 1/10W 3K	1	
R6050		ERJ6GEYG102	M.RESISTOR CH 1/10W 1K	1	
R6051,52		ERJ6GEYG103	M.RESISTOR CH 1/10W 10K	2	
R6053-59		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	7	
R6070		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6071		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	1	
R6073		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6074		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R6075		ERJ6GEYJ121	M.RESISTOR CH 1/10W 120	1	
R6076		ERJ6GEYJ183	M.RESISTOR CH 1/10W 18K	1	
R6077		ERJ6GEYJ474	M.RESISTOR CH 1/10W 470K	1	
R6078,79		ERJ6GEYJ222	M.RESISTOR CH 1/10W 2.2K	2	
R6080		ERJ6GEYJ102	M.RESISTOR CH 1/10W 1K	1	
R6081		ERJ6GEYJ392	M.RESISTOR CH 1/10W 3.9K	1	
R6082		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
R6083		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6084		ERJ6GEYJ562	M.RESISTOR CH 1/10W 5.6K	1	
R6085		ERD2FCG220	C.RESISTOR 2W 22	1	
R6201		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6202-05		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	4	
R6206		ERJ6GEYJ223	M.RESISTOR CH 1/10W 22K	1	
R6207		ERJ6GEYJ103	M.RESISTOR CH 1/10W 10K	1	
R6208		ERJ6GEYJ105	M.RESISTOR CH 1/10W 1M	1	
R6210		ERDS2TJ221	C.RESISTOR 1/4W 220	1	
R6211		ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	
X6001		VSX0230	CRYSTAL OSCILLATOR	1	<R>
	■	VEP06834A	P.C.BOARD W/COMPONENT		
			FRONT 2		
D6701-21		MA165VT	DIODE	21	<R>

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
LD6701		LN840RCP	LED	1	
P6701		VJS2652	CONNECTOR (FEMALE)	1	
			RESISTORS		
R6701		ERDS2TJ221	C.RESISTOR 1/4W 220	1	
R6703		ERDS2TJ433	C.RESISTOR 1/4W 43K	1	
R6704		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
SW6701-18		EVQQS205K	SWITCH	18	<R>
SW6719,20		VSS0162	SWITCH	2	<R>
SW6721		EVQQS205K	SWITCH	1	<R>
VR6701		EVUJ16E04B24	V.RESISTOR 20K	1	
			MISCELLANEOUS		
E59		VMX1436	LED SPACER	1	
E60		VMX1473	LED HOLDER	1	
	■	VEP04385D	P.C.BOARD W/COMPONENT		
			REAR JACK		
CA4901,02		VCR0329333MB	IC	2	
J4901		VJS3154	CONNECTOR (FEMALE)	1	
J4909,10		VJS3155	CONNECTOR (FEMALE)	2	
J4911		VJS3154	CONNECTOR (FEMALE)	1	
J4913		VJJ0322	MONITOR JACK	1	
J4914		VJJ0323	AUDIO JACK	1	
J4915		VJH0672A016	TERMINAL	1	
P4901-04		VJP3152	CONNECTOR (MALE)	4	
			RESISTORS		
R4901		ERDS2TJ750	C.RESISTOR 1/4W 75	1	
R4909,10		ERDS2TJ750	C.RESISTOR 1/4W 75	2	
R4911		ERDS2TJ221	C.RESISTOR 1/4W 220	1	
	■	VEP04387A	P.C.BOARD W/COMPONENT		
			MIC AMP SUB		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITORS		
C4951		ECEA1CKA330	E.CAPACITOR 16V 33U	1	
C4952		ECEA1EKK3R3	E.CAPACITOR 25V 3.3U	1	
C4953		ECEA1CKA100	E.CAPACITOR 16V 10U	1	
C4954		ECEA1CKA101	E.CAPACITOR 16V 100U	1	
C4955,56		ECEA1CKA100	E.CAPACITOR 16V 10U	2	
C4957		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
D4951		MA165VT	DIODE	1	<R>
IC4951		VCR0172	IC	1	<R>
J4951		VJJ0351	MIC JACK	1	
J4952		VJJ0352	REMOTE JACK	1	
P4951		VJS2650A008Z	CONNECTOR (FEMALE)	1	
Q4951		2SD636	TRANSISTOR	1	(Q,R,S)<R>
			RESISTORS		
R4951		ERDS2TJ682	C.RESISTOR 1/4W 6.8K	1	
R4952		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R4953		ERDS2TJ121	C.RESISTOR 1/4W 120	1	
R4954		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R4955		ERDS2TJ104	C.RESISTOR 1/4W 100K	1	
R4956,57		ERDS2TJ563	C.RESISTOR 1/4W 56K	2	
R4958		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
			MISCELLANEOUS		
E61		VMP3847	MIC ANGLE	1	
		XYE3+EF8	SCREW	2	
	■	VEK3578	P.C.BOARD W/COMPONENT		
			PHOTO TR (L) UNIT		
C1501		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
Q1501		PN150NVS	PHOTO TR	1	<R>
			MISCELLANEOUS		
E91		VMD0645	PHOTO TR HOLDER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEK4058	P.C.BOARD W/COMPONENT		
			PHOTO TR (R) UNIT		
C1502		ECKF1H102KB	C.CAPACITOR 50V 1000P		
P1508		VJS2165W	CONNECTOR (FEMALE) 6P	1	
Q1502		PN150NVS	PHOTO TR	1	<R>
R1503		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
			MISCELLANEOUS		
E92		VMD0645	HOLDER	1	
	■	VEK2657	P.C.BOARD W/COMPONENT		
			TENSION SENSOR		
Q1504		ON1301	PHOTO INTERRUPTER	1	<R>
R1502		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
	■	VEK4265	P.C.BOARD W/COMPONENT		
			REV. TENSION SENSOR UNIT		
			MISCELLANEOUS		
E94		XYN26+C5	SCREW	1	
E156		VMA7987	REV. PHOTO HOLDER	1	
E157		ON1108	PHOTO INTERRUPTER	1	
	■	VEK6042	P.C.BOARD W/COMPONENT		
			MOTOR BASE		
			MISCELLANOEUS		
		VJP1229T	CONNECTOR (MALE) 2P	1	
		VJP1229G	CONNECTOR (MALE) 2P	1	
		VJP3106B013	CONNECTOR (MALE) 13P	1	
		VJS1493	CONNECTOR (FEMALE) 15P	1	

! Warning
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Order No. VSD9605S207
D2, D4

Service Manual

Supplement

NTSC / PAL **Video Product**

Subject : Change of HEAD AMP C.B.A.

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AG-MD830P	18	VSD9403M246	B5T
AG-MD830E	13	VSD9408M637	B5T
AG-7350-P	53	VSD9106M207	B5T
AG-7350RP	16	VSD9203M216	B5T
AG-7355-P	27	VSD9110M212	B5T
AG-7355RP	16	VSD9203M216	B5T
AG-7150-P	52	VSD9106M207	B5T
AG-7150-E/B	49	VSD9109M615	B5T
AG-7350-E/B	51	VSD9109M615	B5T
AG-7355-E/B	35	VSD9110M616	B5T
AG-6730P	35	VSD9206M222	B5T
AG-6730E V00636	32	VSD9212M628	B5T
AG-6760P	24	VSD9210M227	B5T
AG-DS850P	77	VSD9403M244	B5T
AG-6045E	4	VSD9501M640	B5T

Board: HEAD AMP C.B.A.

The circuit board pattern has been changed for productivity, reliability and serviceability of the board.

Interchangeability Code (I/C)

A	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
B	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts possible then stock new parts.
C	New parts only may be used in early or late production sets.
D	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
E	Others

Part Number

Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	I/C	Remarks
R5040	ERDS2TJ151	ERDS2TJ221	C.RESISTOR 1/4W 220	1	D	AG-MD830P/E, 7350-P/RP/E/B, AG-7355-P/RP/E/B, 6760P
R5062	-----------------	ERDS2TJ221	C.RESISTOR 1/4W 220	1	D	AG-MD830P/E, 7350-P/RP/E/B, AG-7355-P/RP/E/B, 6760P
R5070	ERDS2TJ472	-----------------		0	E	AG-MD830P/E
R5070	ERDS2TJ472	ERJ6GEYJ472	M.RESISTOR CH 1/10W 4.7K	1	D	AG-7350-P/RP/E/B,7355-P/RP/E/B
R5070	-----------------	ERJ6GEY0R00	M.RESISTOR CH 0	1	E	AG-6760P
R5041	ERJ6GEYJ180	ERJ6GEYJ100	M.RESISTOR CH 1/10W 10	1	D	AG-7350-P/RP/E/B,7355-P/RP/E/B AG-6760P, AG-DS850P
R5060	-----------------	ERJ6GEY0R00	M.RESISTOR CH 0	1	E	AG-7350-P/RP/E/B,7355-P/RP/E/B AG-6730P/E, 6760P
R5061	ERJ6GEY0R00	-----------------		0	E	AG-6760P
Q5006	2SD1450	-----------------		0	E	AG-6760P, 6045E
IC5003	-----------------	2SD1450	TRANSISTOR	1	E	AG-6760P, 6045E
C5057	-----------------	ERJ6GEY0R00	M.RESISTOR CH 0	1	E	AG-6760P
C5060	-----------------	ERJ6GEY0R00	M.RESISTOR CH 0	1	E	AG-6760P
W5001	ERJ6GEY0R00	-----------------	M.RESISTOR CH 0	1	E	AG-6760P

TE2-4122

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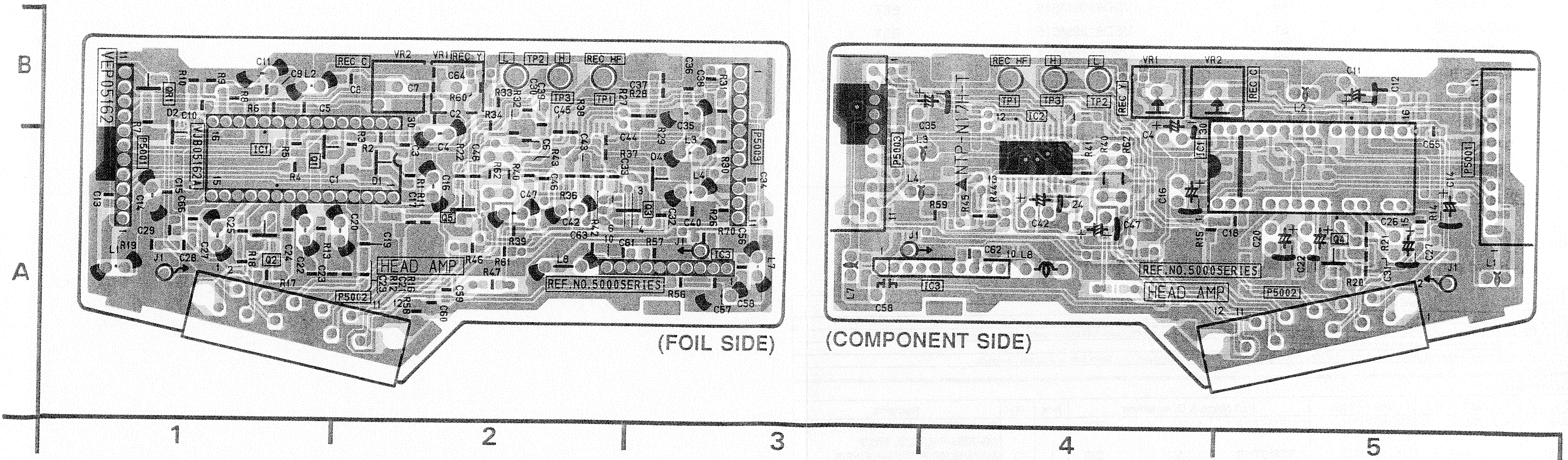
HEAD AMP C.B.A.

HEAD AMP C.B.A.			
Transistor		**Adjustment**	
Q5001	A-1	VR5001	B-2
Q5002	A-1	VR5001	B-4
Q5003	A-3	VR5002	B-2
Q5004	A-5	VR5002	B-4
Q5005	A-2	**Connector**	
Transistor & Resistor		P5001	A-1
QR5001	B-1	P5001	A-5
Integrated Circuit		P5002	A-2
IC5001	A-1	P5002	A-5
IC5001	A-5	P5003	A-3
IC5002	A-4	P5003	A-3
IC5003	A-3		
IC5003	A-4		
Test Point			
TP5001	B-2		
TP5001	B-4		
TP5002	B-2		
TP5002	B-4		
TP5003	B-2		
TP5003	B-4		

ADDRESS INFORMATION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A
1
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VEP05162
VJB05162A
HEAD AMP
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REC C
REC Y
REC HF
VR1
VR2
TP1
TP2
TP3
IC1
IC2
IC3
P5001
P5002
P5003
J1

(FOIL SIDE)

(COMPONENT SIDE)

00636

⚠WARNING
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Order No. VSD9410S696

Service Manual

Supplement

Video Product

Subject: Transistor Change

Please use this supplement together with the Service Manual as follows:

Model No.	Bulletin No.	Order No.	Effective from
AG-6730E	14	VSD9212M628	H4T - - -
AG-6040E	13	VSD9209M625	H4T - - -

Board : SERVO C.B.A.

In order to maintain sufficient hfe range, the transistor has been changed as follow.

Interchangeability Code (I/C)

A	Original or new parts may be used in early or late production set Use original parts until exhausted, then stock new parts.	B	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts possible then stock new parts.
C	New parts only may be used in early or late production sets.	D	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
E	Other		

Part Number

Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	I/C	Remarks
Q2904	MRN2404	MRN2402	TRANSISTOR-RESISTOR	1	B	

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Printed in Japan

V00636

Order No. VSD9310S680

Service Manual

Supplement

Video Product

Subject: Change of Variable Resistor

Please use this supplement together with the Service Manual as follows:

Model No.	Bulletin No.	Order No.	Effective from
AG-6730-E	11	VSD9212M628	Running Change
AG-6040-E	10	VSD9209M625	Running Change

Board :

Reason for Change

☐ The following part(s) has(have) been changed for serviceability improvement.
■ The following part(s) has(have) been changed for productivity improvement.
☐ The following part(s) has(have) been changed for standardization purpose.
☐ The following part(s) has(have) been changed for the safety regulation.
■ For automatic adjustment.
ENV32CA00B - - - (- type) → EVN49CA00B - - - (+ type)

Interchangeability Code (I/C)

A	Original or new parts may be used in early or late production set Use original parts until exhausted, then stock new parts.	B	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts possible then stock new parts.
C	New parts only may be used in early or late production sets.	D	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
E	Other		

Part Number

Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	I/C	Remarks

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Part Number						
Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	I/C	Remarks
VR5001,5002	EVN32CA00B23	EVN49CA00B23	V.RESISTOR	2	A	HEAD AMP C.B.A. (AG-6730)
VR3001-04	EVN32CA00B13	EVN49CA00B13	V.RESISTOR	4	A	VIDEO 1 C.B.A. (AG-6730)
VR3005	EVN32CA00B52	EVN49CA00B52	V.RESISTOR	1	A	VIDEO 1 C.B.A. (AG-6730)
VR3007	EVN32CA00B54	EVN49CA00B54	V.RESISTOR	1	A	VIDEO 1 C.B.A. (AG-6730)
VR3008	EVN32CA00B24	EVN49CA00B24	V.RESISTOR	1	A	VIDEO 1 C.B.A. (AG-6730)
VR8001	EVN32CA00B23	EVN49CA00B23	V.RESISTOR	1	A	VIDEO 2 C.B.A. (AG-6730)
VR8002	EVN32CA00B24	EVN49CA00B24	V.RESISTOR	1	A	VIDEO 2 C.B.A. (AG-6730)
VR8003	EVN32CA00B52	EVN49CA00B52	V.RESISTOR	1	A	VIDEO 2 C.B.A. (AG-6730)
VR8004	EVN32CA00B13	EVN49CA00B13	V.RESISTOR	1	A	VIDEO 2 C.B.A. (AG-6730)
VR8005	EVN32CA00B14	EVN49CA00B14	V.RESISTOR	1	A	VIDEO 2 C.B.A. (AG-6730)
VR8001	EVN32CA00B23	EVN49CA00B23	V.RESISTOR	1	A	VIDEO 2 C.B.A. (AG-6040)
VR8002	EVN32CA00B14	EVN49CA00B14	V.RESISTOR	1	A	VIDEO 2 C.B.A. (AG-6040)
VR3501	EVN32CA00B24	EVN49CA00B24	V.RESISTOR	1	A	VIDEO 3 C.B.A. (AG-6730)
VR3502	EVN32CA00B52	EVN49CA00B52	V.RESISTOR	1	A	VIDEO 3 C.B.A. (AG-6730)
VR3503,3505, 3506	EVN32CA00B13	EVN49CA00B13	V.RESISTOR	3	A	VIDEO 3 C.B.A. (AG-6730)
VR3001,3004	EVN32CA00B52	EVN49CA00B52	V.RESISTOR	2	A	VIDEO 3 C.B.A. (AG-6040)
VR3002	EVN32CA00B54	EVN49CA00B54	V.RESISTOR	1	A	VIDEO 3 C.B.A. (AG-6040)
VR3006	EVN32CA00B13	EVN49CA00B13	V.RESISTOR	1	A	VIDEO 3 C.B.A. (AG-6040)
VR4001	EVN32CA00B14	EVN49CA00B14	V.RESISTOR	1	A	AUDIO C.B.A. (AG-6730)
VR4002	EVN32CA00B25	EVN49CA00B25	V.RESISTOR	1	A	AUDIO C.B.A. (AG-6730)

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Order No. VSD9504S634

Service Manual

Supplement

Video Product

Subject: Change of IC

Please use this supplement together with the Service Manual as follows:

Model No.	Bulletin No.	Order No.	Effective from
AG-6730E V00656	27	VSD9212M628	D5 - - -
AG-7150-E/B	46	VSD9109M615	D5 - - -
AG-7350-E/B	46	VSD9109M615	D5 - - -
AG-7355-E/B	30	VSD9110M616	D5 - - -
AG-5700-E/B	15	VSD9202M619	D5 - - -

The following IC for the video circuit has been changed for durability improvement.

Interchangeability Code (I/C)

A	Original or new parts may be used in early or late production set Use original parts until exhausted, then stock new parts.	B	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts possible then stock new parts.
C	New parts only may be used in early or late production sets.	D	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
E	Other		

Part Number

Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	I/C	Remarks
IC3006	VEFH05BT	VCR0389	IC	1	C	Except AG-5700
IC3002	VEFH05BT	VCR0389	IC	1	C	Only AG-5700

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nterchangeability Code (I/C)

A	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
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D	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
E	Others

Part Number

Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	I/C	Remarks
C1008	VCK0041	VCK0259K331A	CAPACITOR	1	C	AG-7150/7350/7355-E/B
C1045	VCK0041	VCK0259K331A	CAPACITOR	1	C	AG-7150/7350/7355-E/B
C1003-5	VCK0040	VCK0259K221A	CAPACITOR	3	C	AG-7150/7350/7355-E/B
C1005	VCK0046	VCK0260K222A	CAPACITOR	1	C	AG-6040/6730/6045E
C1010	VCK0046	VCK0260K222A	CAPACITOR	1	C	AG-6040/6730/6045E
C10038	VCK0046	VCK0260K222A	CAPACITOR	1	C	AG-6040/6730/6450E
C1001-3	VCC0046	VCK0260K222A	CAPACITOR	3	C	AG-6040/6730/6450E
C1006	VCC0046	VCK0260K222A	CAPACITOR	1	C	AG-6040/6730/6450E
C1036	VCC0046	VCK0260K222A	CAPACITOR	1	C	AG-6040/6730/6450E
C1037	VCC0024	VCK0262K222A	CAPACITOR	1	C	AG-6040/6730/6450E
C1002-3	VCK0083	VCK0260M332A	CAPACITOR	2	C	AG-MD830E/B
C1004-5	VCK0043	VCK0259M102A	CAPACITOR	2	C	AG-MD830E/B
C1102-5	VCK0083	VCK0260M332A	CAPACITOR	4	C	AG-5700-E
C1003-4	VCK0046	VCK0260K222A	CAPACITOR	2	C	AG-6840H/6850HE
C1005	VCK0046	VCK0260K222A	CAPACITOR	1	C	AG-6840H/6850HE
C1027-28	VCK0045	VCK0260K152A	CAPACITOR	2	C	AG-6840H/6850HE
C1029	VCK0045	VCK0260K152A	CAPACITOR	1	C	AG-6840H/6850HE
C1010	VCC0024	VCK0262M222A	CAPACITOR	1	C	AG-5260E/B
C1011	VCC0046	VCK0260M222A	CAPACITOR	1	C	AG-5210E/B
C1012	VCC0046	VCK0260M222A	CAPACITOR	1	C	AG-5210E/B
C1010	VCC0024	VCK0262M222A	CAPACITOR	1	C	AG-6124/5260E/B
C1011-12	VCK0046	VCK0260M222A	CAPACITOR	2	C	AG-6124/5260E/B
C1001	VCC0024	VCK0262M222A	CAPACITOR	1	C	AG-6124/5260E/B
C1002-3	VCC0046	VCK0260M222A	CAPACITOR	2	C	AG-6124/5260E/B
C004	VCC0024	VCK0262M222A	CAPACITOR	1	C	AG-6124/5260E/B
C1005-6	VCC0046	VCK0260M222A	CAPACITOR	2	C	AG-6124/5260E/B
C1001-2	VCK0083	VCK0260M332A	CAPACITOR	2	C	AG-7600/7700/8600/8700E
C1004-5	VCK0044	VCK0260M102A	CAPACITOR	2	C	AG-7600/7700/8600/8700E

! Warning
This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advice non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service manual by anyone else could result in serious injury or death.

Order No. VSD9608S603
D

Service Manual

Supplement

Video Product

Subject : Change of Capacitor

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AG-7150-E/B	50	VSD9109M615	A5----
AG-7350-E/B	53	VSD9109M615	A5----
AG-7355-E/B	38	VSD9110M616	A5----
AG-6040E	30	VSD9209M625	A5----
AG-6730E ✓00636	34	VSD9212M628	A5----
AG-6045E	5	VSD9501M640	A5----
AG-5700-E	18	VSD9202M619	A5----
AG-MD830E	15	VSD9408M637	A5----
AG-6840HE/B	32	VSD9004M602	A5----
AG-6850H-E/B	32	VSD9006M603	A5----
AG-6124E/B	9	VSD9406M635	A5----
AG-5260E/B	9	VSD9404M633	A5----
AG-7600E	8	VSD9502M642	A5----
AG-7700E	12	VSD9502M642	A5----
AG-8600E	6	VSD9512M601	A5----
AG-8700E	6	VSD9512M601	A5----

Board: POWER

Reason for Change

☐ The following part(s) has(have) been changed for serviceability improvement.
☐ The following part(s) has(have) been changed for productivity improvement.
☐ The following part(s) has(have) been changed for standardization.
■ The following part(s) has (have) been changed for the safety regulation.
☐

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Order No. VSD9505S602

! Warning

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Service Manual

Supplement 3

Video Product

Subject : Change of Upper Cylinder

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AG-6730E	28	VSD9212M628	B5- - -

Chassis Part Section

In order to improve the characteristic of chrominance recording and playback, the upper cylinder unit has been changed as shown below.

When the new type of upper cylinder is installed, the specification of the following recording current adjustments should be changed.

	Previous Specification	New Specification
S-VHS C Recording Current	35mVp-p+/-2mV	30mVp-p+/-2mV
S-VHS Y Recording Current	150mVp-p+/-10mV	130mVp-p+/-10mV
VHS Y Recording Current	150mVp-p+/-10mV	130mVp-p+/-10mv

Interchangeability Code (I/C)

A	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
B	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts possible then stock new parts.
C	New parts only may be used in early or late production seats.
D	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original ad new parts.
E	Others

Part Number

Ref No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	I/C	Remarks
1-41	VEH0458	VEH0693	UPPER CYLINDER	1	A	

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Order No. VSD9310S228 (for NTSC)
VSD9310S682 (for PAL)
D1,D2

Service Manual

Supplement

PAL/NTSC Video Product

Subject: Change of Connector

Please use this supplement together with the Service Manual as follows:

Model No.	Bulletin No.	Order No.	Effective from
AG-7355-P/RP	19	VSD9110M212	Running Change
AG-7350-P	45	VSD9106M207	Running Change
AG-7150-P	44	VSD9106M207	Running Change
AG-7355-E/B	18	VSD9110M616	Running Change
AG-7350/7150-E/B	31	VSD9109M615	Running Change
AG-6730/6040-P	20	VSD9206M222	Running Change
AG-6760-P	13	VSD9210M227	Running Change
AG-6730-E	12	VSD9212M628	Running Change
AG-6040-E	11	VSD9209M625	Running Change

Board : REAR JACK & FRONT C.B.A.

Reason for Change

☐ The following part(s) has(have) been changed for serviceability improvement.
■ The following part(s) has(have) been changed for productivity improvement.
☐ The following part(s) has(have) been changed for standardization purpose.
☐ The following part(s) has(have) been changed for the safety regulation.
☐

Interchangeability Code (I/C)

A	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.	B	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts possible then stock new parts.
C	New parts only may be used in early or late production sets.	D	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
E	Other		

Part Number

Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	I/C	Remarks
P6901-03	VJP3152	VJP3503	CONNECTOR	3	A	AG-7350 SERIES
P6201-04	VJP3152	VJP3503	CONNECTOR	4	A	AG-7350 SERIES
P6601-03	VJP3152	VJP3503	CONNECTOR	3	A	AG-6730 SERIES
P4901-04	VJP3152	VJP3503	CONNECTOR	4	A	AG-6730 SERIES

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Order No. VSD9607S204
D1,D2,D4

Service Manual

Supplement

NTSC / PAL Video Product

Subject : Change of Capacitor

Please use this supplement together with the Service Manual as follows :

Model No.	Bulletin No.	Order No.	Effective from
AG-5700-P	19	VSD9110M218	D6-----
AG-6730P	48	VSD9206M227	D6-----
AG-6760P	35	VSD9210M264	D6-----
AG-1980P	6	VSD9509M264	D6-----
AG-5700-E/B	17	VSD9202M619	D6-----
AG-6730E V00636	33	VSD9212M628	D6-----

Board: 2H DIGITAL DELAY

In order to improve durability, the capacitors in the parts list below have been changed.

Interchangeability Code (I/C)

A	Original or new parts may be used in early or late production set. Use original parts until exhausted, then stock new parts.
B	Original parts may be used in early production sets only. New parts may be used in early or late production sets. Use original parts possible then stock new parts.
C	New parts only may be used in early or late production sets.
D	Original parts may be used in early production sets only. New parts may be used in late production sets only. Stock both original and new parts.
E	Others

Part Number

Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions	Pcs	I/C	Remarks
C8003	ECEV0JA470	ECEV0JV470Q	E. CAPACITOR CH 6.3V 47U	1	C	AG-5700/AG-6730P/E/B
C8007	ECEV0JA220	ECEV0JV220Q	E. CAPACITOR CH 6.3V 22U	1	C	AG-5700/AG-6730P/E/B
C8017	ECEV0JA220	ECEV0JV220Q	E. CAPACITOR CH 6.3V 22U	1	C	AG-5700/AG-6730P/E/B
C8024	ECEV0JA220	ECEV0JV220Q	E. CAPACITOR CH 6.3V 22U	1	C	AG-5700/AG-6730P/E/B
C8010	ECEV0JA100	ECEV0JV100Q	E. CAPACITOR CH 6.3V 10U	1	C	AG-5700/AG-6730P/E/B
C8011	ECEV1HA2R2	ECEV1HV2R2Q	E. CAPACITOR CH 50V 2.2U	1	C	AG-5700/AG-6730P/E/B
C8015	ECEV1HAN010	ECEV1HN010Q	E. CAPACITOR CH 50V 1U	1	C	AG-5700/AG-6730P/E/B

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Part Number

Ref. No.	Original Part No.	New Part No.	Part Name & Descriptions		Pcs	I/C	Remarks
C30070	ECEV0JA470	ECEV0JV470Q	E. CAPACITOR CH 6.3V	47U	1	C	AG-1980P
C33002	ECEV0JA470	ECEV0JV470Q	E. CAPACITOR CH 6.3V	47U	1	C	AG-1980P
C33004	ECEV0JA470	ECEV0JV470Q	E. CAPACITOR CH 6.3V	47U	1	C	AG-1980P
C33006	ECEV0JA470	ECEV0JV470Q	E. CAPACITOR CH 6.3V	47U	1	C	AG-1980P
C33016	ECEV0JA470	ECEV0JV470Q	E. CAPACITOR CH 6.3V	47U	1	C	AG-1980P
C33019	ECEV0JA470	ECEV0JV470Q	E. CAPACITOR CH 6.3V	47U	1	C	AG-1980P
C33022	ECEV0JA470	ECEV0JV470Q	E. CAPACITOR CH 6.3V	47U	1	C	AG-1980P
C33029	ECEV0JA470P	ECEV0JV470Q	E. CAPACITOR CH 6.3V	47U	1	C	AG-1980P
C33032	ECEV0JA470	ECEV0JV470Q	E. CAPACITOR CH 6.3V	47U	1	C	AG-1980P
C33035	ECEV0JA470	ECEV0JV470Q	E. CAPACITOR CH 6.3V	47U	1	C	AG-1980P
C30010	ECEV1CA100	ECEV1CA100Q	E. CAPACITOR CH 16V	10U	1	C	AG-1980P
C33017	ECEV1CA100	ECEV1CA100Q	E. CAPACITOR CH 16V	10U	1	C	AG-1980P
C33020	ECEV1CA100	ECEV1CA100Q	E. CAPACITOR CH 16V	10U	1	C	AG-1980P
C33030	ECEV1CA100	ECEV1CA100Q	E. CAPACITOR CH 16V	10U	1	C	AG-1980P
C33036	ECEV1CA100	ECEV1CA100Q	E. CAPACITOR CH 16V	10U	1	C	AG-1980P
C33072	ECEV1CA100	ECEV1CA100Q	E. CAPACITOR CH 16V	10U	1	C	AG-1980P
C30015	ECEV1EA4R7	ECEV1EV4R7Q	E. CAPACITOR CH 25V	4.7U	1	C	AG-1980P
C30033	ECEV1EA4R7	ECEV1EV4R7Q	E. CAPACITOR CH 25V	4.7U	1	C	AG-1980P
C30027	ECEV1EA4R7	ECEV1EV4R7Q	E. CAPACITOR CH 25V	4.7U	1	C	AG-1980P
C30062	ECEV1CA200	ECEV1CV200Q	E. CAPACITOR CH 16V	20U	1	C	AG-1980P
C36003	ECEV0JA470	ECEV0JV470Q	E. CAPACITOR CH 6.3V	47U	1	C	AG-1980P
C36011	ECEV0JA470	ECEV0JV470Q	E. CAPACITOR CH 6.3V	47U	1	C	AG-1980P
C36016	ECEV0JA22R	ECEV0JV220Q	E. CAPACITOR CH 6.3V	22U	1	C	AG-1980P